Task Information Delivery Plan (TIDP)
ELENCO ELABORATI

Project Number *Numero progetto*	P10424
Project Title *Titolo del progetto*	MXP I-I
Author *Autore*	**Maestrale**
Date Created *Data creazione*	08/04/2022
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Deliverables - *Documenti consegnati*					**COMPASS NUMBERING** *Numerazione Compass*
Description *Descrizione*	**Title** *Titolo*	**Exchange Format** *Formato di Scambio*	**Scale** *Scala*	**Size** *Formato*	**File Name** *Nome File*
MODELS (Modelli)					
3D Model File *3D Model File*	Revit Model - Structural Model *Revit Model - Modello strutturale*	RVT	N.T.S	A0	MXP-MAE-ZZ-ZZ-M3-S-0001
DRAWINGS *Disegni*					
General Informations *Informazioni generali*					
Drawing *Disegno*	General Notes *Note generali*	PDF	-	A0	SG001
Drawing *Disegno*	General Plan of Quarters Subdivision *Pianta generale della suddivisione dei quadranti*	PDF	1:300	A0	SG401
Drawing *Disegno*	Loading Plans *Pianta dei carichi*	PDF	1:500	A0	SG402
Foundations *Fondazioni*					
Drawing *Disegno*	Foundations Plan - Quarter I *Pianta fondazioni - Quadrante I*	PDF	1:150/1:50	A0	SB101
Drawing *Disegno*	Foundations Plan - Quarter II *Pianta fondazioni - Quadrante II*	PDF	1:150/1:50	A0	SB102
Drawing *Disegno*	Foundations Plan - Quarter III *Pianta fondazioni - Quadrante III*	PDF	1:150/1:50	A0	SB103
Drawing *Disegno*	Foundations Plan - Quarter IV *Pianta fondazioni - Quadrante IV*	PDF	1:150/1:50	A0	SB104
Drawing *Disegno*	Foundations Plan - Quarter V *Pianta fondazioni - Quadrante V*	PDF	1:150/1:50	A0	SB105
Drawing *Disegno*	Foundations Plan - Sector DH-3&DH-4 *Pianta fondazioni - Settore DH-3&DH-4*	PDF	1:150/1:50	A0	SB106
Drawing *Disegno*	Foundations Plan - Sector DH-1&DH-2 *Pianta fondazioni - Settore DH-1&DH-2*	PDF	1:150/1:50	A0	SB107
Drawing *Disegno*	Foundations Reinforcement and Details - PAC.4 to PAC.9 *Armatura delle fondazioni e dettagli - PAC.4 to PAC.9*	PDF	1:50	A0	SB501
Drawing *Disegno*	Foundations Reinforcement and Details - Couplers Reinf. for Beam Connections *Armatura delle fondazioni e dettagli - Accoppiatori Armatura per le connessioni tra le travi*	PDF	1:50	A0	SB502
Drawing *Disegno*	Raft Foundation - Piles Layout and Formwork - Sector DH-3&DH-4 *Platea di fondazione - Disposizione dei pali e carpenterie - Settore DH-3&DH-4*	PDF	1:200/1:25	A0	SB108
Drawing *Disegno*	Raft Foundation - Piles Layout and Formwork - Sector DH-1&DH-2 *Platea di fondazione - Disposizione dei pali e carpenterie - Settore DH-1&DH-2*	PDF	1:200/1:25	A0	SB109
Drawing *Disegno*	Raft Foundation Reinforcement and Details - Sector DH-3&DH-4 - Part 1/2 *Armatura delle fondazioni e dettagli - Settore DH-3&DH-4 - Parte 1/2*	PDF	1:200/1:25	A0	SB503
Drawing *Disegno*	Raft Foundation Reinforcement and Details - Sector DH-3&DH-4 - Part 2/2 *Armatura delle fondazioni e dettagli - Settore DH-3&DH-4 - Parte 2/2*	PDF	1:200/1:25	A0	SB504
Drawing *Disegno*	Raft Foundation Reinforcement and Details - Sector DH-1&DH-2 - Part 1/2 *Armatura delle fondazioni e dettagli - Settore DH-1&DH-2- Parte 1/2*	PDF	1:200/1:25	A0	SB505
Drawing *Disegno*	Raft Foundation Reinforcement and Details - Sector DH-1&DH-2 - Part 2/2 *Armatura delle fondazioni e dettagli - Settore DH-1&DH-2 - Parte 2/2*	PDF	1:200/1:25	A0	SB506
Drawing *Disegno*	Pile Reinforcement and Details - PIC1 to PIC6 *Armatura dei pali e dettagli - PIC1 to PIC6*	PDF	1:50	A0	SB507
Drawing *Disegno*	Ground Beams Reinforcement - GMB.01 to GMB.08 *Armatura cordoli di fondazione - GMB.01 to GMB.08*	PDF	1:50	A0	SB508
Drawing *Disegno*	Ground Beams Reinforcement - GMB.09 to GMB.16 - Loading Bay *Armatura cordoli di fondazione - GMB.09 to GMB.16 - Baia di carico*	PDF	1:50	A0	SB509
Drawing *Disegno*	Precast Stem Walls Elevations *Trave prefabbricata di fondazioni - Prospetti*	PDF	1:150	A0	SB201
Drawing *Disegno*	Precast Stem Walls - Details and Reinforcement Trave prefabbricata di fondazioni - Dettagli e armature	PDF	-	A0	SB510
Drawing *Disegno*	External Yard Equipment Foundations Geometry - Part 1/2 Carpenterie delle fondazioni, apparecchiature esterne - Parte 1/2	PDF	1:50	A0	SB110
Drawing *Disegno*	External Yard Equipment Foundations Geometry - Part 2/2 *Carpenterie delle fondazioni, apparecchiature esterne - Parte 2/2*	PDF	1:50	A0	SB111
Drawing *Disegno*	External Yard Equipment Foundations Reinforcement - PAC.9 and POWER CENTER 1-3 *Armature delle fondazioni, apparecchiature esterne - PAC.9 and POWER CENTER 1-3*	PDF	1:50	A0	SB511
Drawing *Disegno*	External Yard Equipment Foundations Reinforcement - ACU / RMU / TRAFO / PAC.1/ PAC.2 *Armature delle fondazioni, apparecchiature esterne - ACU / RMU / TRAFO / PAC.1/ PAC.2*	PDF	1:50	A0	SB512
Drawing *Disegno*	Loading Bay and Waste Area *Baia di carico e area di scarico*	PDF	1:100	A0	SB112
Drawing *Disegno*	Loading Bay - Retaining Walls Reinforcement - Part 1/2 *Baia di carico - Armatura dei muri di sostegno - Part 1/2*	PDF	1:20	A0	SB513
Drawing *Disegno*	Loading Bay - Retaining Walls Reinforcement - Part 2/2 *Baia di carico - Armatura dei muri di sostegno - Part 1/2*	PDF	1:20	A0	SB514
Drawing *Disegno*	Concrete Fuel Tank Enclosure - GE-1 *Prefabbricato scatolare dei serbatoi - GE-1*	PDF	1:50/1:25	A0	SB113
Drawing *Disegno*	Concrete Fuel Tank Enclosure - GE-2 *Prefabbricato scatolare dei serbatoi - GE-2*	PDF	1:50/1:25	A0	SB114
Drawing *Disegno*	Concrete Fuel Tank Enclosure - Reinforcement and Details *Prefabbricato scatolare dei serbatoi - Armature e dettagli*	PDF	1:50	A0	SB515
Superstructure *Struttura in elevazione*					
Drawing *Disegno*	Precast Columns Plan - Sector DH-3&DH-4 *Pianta delle colonne prefabbricate - Settore DH-3&DH-4*	PDF	1:150	A0	SF101
Drawing *Disegno*	Precast Columns Plan - Sector DH-1&DH-2 *Pianta delle colonne prefabbricate - Settore DH-1&DH-2*	PDF	1:150	A0	SF102
Drawing *Disegno*	Precast Columns Plan - Quarter V *Pianta delle colonne prefabbricate - Quadrante V*	PDF	1:150	A0	SF103
Drawing *Disegno*	Sections - Sector DH-3&DH-4 and Sector DH-1&DH-2 *Sezioni - Settore DH-3&DH-4 e Settore DH-1&DH-2*	PDF	1:100	A0	SF301
Drawing *Disegno*	Sections - Quarter V *Sezioni - Quadrante V*	PDF	1:100	A0	SF302

Project Title ***Titolo del progetto***	MXP I-I
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Description ***Descrizione***	**Title** ***Titolo***	**Exchange Format** ***Formato di Scambio***	**Scale** ***Scala***	**Size** ***Formato***	**File Name** ***Nome File***
Drawing *Disegno*	Precast Panels Elevation - Sector DH-3&DH-4 *Prospetti panelli prefabbricati - Settore DH-3&DH-4*	PDF	1:150	A0	SF201
Drawing *Disegno*	Precast Panels Elevation - Sector DH-1&DH-2 *Prospetti panelli prefabbricati - Settore DH-1&DH-2*	PDF	1:150	A0	SF202
Drawing *Disegno*	Precast Panels Elevation - Quarter V Prospetti panelli prefabbricati - Quadrante V	PDF	1:150	A0	SF203
Drawing *Disegno*	Precast Columns - Details and Reinforcement *Colonne prefabbricati - Armature e dettagli*	PDF	-	A0	SF501
Drawing *Disegno*	Precast Panels - Details and Reinforcement *Pannelli prefabbricati - Armature e dettagli*	PDF	-	A0	SF502
Drawing *Disegno*	Roof Plan - Sector DH-3&DH-4 *Pianta copertura - Settore DH-3&DH-4*	PDF	1:150	A0	SF104
Drawing *Disegno*	*Roof Plan - Sector DH-1&DH-2* *Pianta copertura - Settore DH-1&DH-2*	PDF	1:150	A0	SF105
Drawing *Disegno*	Roof Plan - Quarter V *Pianta copertura - Quadrante V*	PDF	1:150	A0	SF106
Drawing *Disegno*	Double Tee Beams - Geometry and Reinforcement *Tegoli a doppia T - Geometria e armature*	PDF	-	A0	SF503
Drawing *Disegno*	Tee Beams - Geometry and Reinforcement *Travi a T - Geometria e armature*	PDF	-	A0	SF504
Drawing *Disegno*	L Beams - Geometry and Reinforcement *Travi ad L - Geometria e armature*	PDF	-	A0	SF505
Drawing *Disegno*	Rectangular Beams - Geometry and Reinforcement *Travi rettangolari - Geometria e armature*	PDF	-	A0	SF506
Drawing *Disegno*	Precast Connections - Joints and Details *Connessioni prefabbricate - Giunti e dettagli*	PDF	1:20	A0	SF507
Drawing *Disegno*	Rigid Diaprhagm - Reinforcement and Details *Diaframma di piano - Armature e dettagli*	PDF	1:20	A0	SF508
External Stairs *Scale esterne*					
Drawing *Disegno*	West Staircase - Plan and Elevations *Scale ovest - Piante e prospetti*	PDF	1:50/1:20	A0	SF107
Drawing *Disegno*	South- East Staircase - Plan and Elevations *Scale sud-est - Piante e prospetti*	PDF	1:50/1:20	A0	SF108
Drawing *Disegno*	Details and Reinforcement *Dettagli e armature*	PDF	1:25	A0	SF509
Steelworks *Carpenteria metallica*					
Drawing *Disegno*	ACU Hoods Supporting Structure - Plans and Sections *Struttura portante dei condoti ACU - Piante e sezioni*	PDF	1:50	A0	SF109
Drawing *Disegno*	Canopies - Plans and Sections *Pensiline - Piante e sezioni*	PDF	1:25	A0	SF110
Drawing *Disegno*	MEP Distribution Structural Frame - Plans and Sections - Keyplan and Type 1 Frame *Struttura di distribuzione MEP - Piante e sezioni - Pianta chiave e telaio tipo 1*	PDF	1:50	A0	SF111
Drawing *Disegno*	MEP Distribution Structural Frame- Plans and Sections - Type 2 and Type 3 Frames *Struttura di distribuzione MEP - Piante e sezioni - Telaio tipo 2 e 3*	PDF	1:50	A0	SF112
Drawing *Disegno*	MEP Distribution Structural Frame - Plans and Sections - Type 4 Frame *Struttura di distribuzione MEP - Piante e sezioni - Telaio tipo 4*	PDF	1:50	A0	SF113
Drawing *Disegno*	Typical Details *Dettagli tipici*	PDF	1:10	A0	SF510
Drawing *Disegno*	PC Tap Box Support Structure - Design intent *Struttura di supporto del quadro elettrico PC - Intento progettuale*	PDF	1:300/1:25	A0	SF114
REPORTS ***RELAZIONI***					
Report *Relazione*	Structural Illustrative Report Relazione illustrativa strutturale	PDF	-	A4	MXP-MAE-ZZ-ZZ-CA-S-0001
Report *Relazione*	Calculation and Material Report *Relazione di calcolo e sui materiali*	PDF	-	A4	MXP-MAE-ZZ-ZZ-CA-S-0002
Report *Relazione*	Maintenance Report *Relazione di manutenzione*	PDF	-	A4	MXP-MAE-ZZ-ZZ-CA-S-0003
Report *Relazione*	Geotechnical Report *Relazione geotecnica*	PDF	-	A4	MXP-MAE-ZZ-ZZ-CA-S-0004
Report *Relazione*	Raft foundation - Calculation Report *Platea di fondazione - Relazione di calcolo*	PDF	-	A4	MXP-MAE-ZZ-ZZ-CA-S-0005
SPECIFICATIONS ***SPECIFICHE***					
Specification *Specifiche*	Structural Specifications *Specifiche strutturali*	PDF	-	A4	MXP-MAE-ZZ-ZZ-CA-S-0006

NOTA TRADUZIONE DEL CARTIGLIO
TRANSLATION OF THE TITILE BLOCK

Cartiglio in lingua italiana/Italian language title block

P03	Progetto esecutivo	BH/FIBH/MEG	22/02/2023
P02	Progetto esecutivo	BH/FIBH/MEG	03/02/2023
P01	Progetto esecutivo	BH/FIBH/MEG	16/12/2022
	Dettagli		

Comittente

COMPASS datacenters

Architettonico / Civile/ Strutture

MAESTRALE

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Nome progetto

MXP I-I

Nome tavola

Informazioni generali
Note generali

Stato del progetto

PROGETTO ESECUTIVO

Disciplina	Codice stato
Progetto strutturale	**S5**

Numero Progetto	Scala @ A0	Revisione
P10424	**N/A**	**P01**

Numero del disegno

SG001

Cartiglio in lingua inglese/English language title block

	Issued for Construction	BH/FIBH/MEG	22/02/2023
	Issued for Construction	BH/FIBH/MEG	03/02/2023
P01	Issued for Construction	BH/FIBH/MEG	16/12/2022
	Details		

Client

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Project Title

MXP I-I

Drawing Title

General Informations
General Notes

Project Status

ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**

Project Number	Scale @ A0	Revision
P10424	**N/A**	**P01**

Drawing Number

SG001

1. GENERAL NOTES ON DRAWINGS

- All structural drawings shall be read in conjunction with relevant architect, MEP drainage, specialist drawings and specs.
- All levels shown in the structural drawings are in metre (m) Above Ordinance Datum (A.O.D) unless noted otherwise.
- All dimensions shown on the structural drawings are in centimetre (cm) or millimetre (mm) unless noted otherwise.
- Dimensions of structural members shown in plan and elevations on the structural drawings are to be intended as nominal dimensions of the undeformed structure.
- Slab openings and risers shall be verified with architect and MEP drawings and all slab opening or raisers smaller than 300mm x 300mm are not shown on the structural drawings.
- The contractor shall verify that all required openings in slabs and walls are correctly indicated on the construction package of the structural drawings.
- For setting out of cast in and mechanical fixings in the main structure required to support elements of work by sub-contractors refer to the relevant subcontractors drawings.
- On no account shall holes or other openings, irrespective of sizes, be cut or displaced in any part of the structure without prior approval by the Site Supervisor in writing.
- For all axis and setting out refer to architect drawings.
- For all sizes of partition walls, false ceilings and other non-structural elements refer to architectural drawings. The contractor shall erect all non-structural elements to comply with the current seismic regulations as set out in NTC2018.
- All materials and workmanship shall be in accordance with the relevant structural specifications and the current Italian standards and European regulations.
- All brands of structural products identified in the drawings and project documentation are to be intended as indicative. The contractor can adopt products from different manufacturers but with equivalent performances to be submitted for Site Supervisor's approval.
- For all above and below ground drainage details refer to MEP drawings and specifications.
- For all details of services runs refer to MEP drawings and specifications.
- All water proofing and damp proofing above ground to Architect Specifications.

2. GENERAL NOTES ON MATERIALS

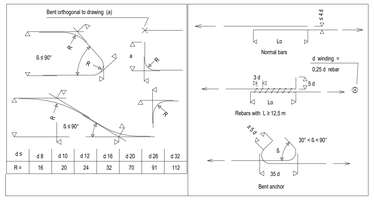
2.1 REINFORCED CONCRETE (IN SITU)

- All conduits to be embedded in the structural concrete shall be approved by site supervisor.
- Construction joints have to be installed at locations indicated or approved by architect/site supervisor.
- In areas such as WCs, balconies, roof decks and water features the contractor shall follow the waterproofing guidelines laid out in architectural specifications.
- Contractor shall submit the concrete mix design and the relevant certifications by the additive producer for approval by the work supervisor.
- For 10 days from casting, the concrete shall be protected against evaporation by means of a polyethylene membrane.
- Reinforcement shop drawings shall be prepared by the contractor including all embedded inserts details, openings added reinforcement.
- Columns and walls shall have a 10-15 mm chamfered corners.
- Construction joints to be positioned to not affect strength and appearance of concrete. Positions shall be approved by site supervisor. In general, where necessary, for beams they should be positioned in the middle third of span.
- Concreting is forbidden at a temperature above 32° and below 0°c. Use of additives may be adopted outside the specified range after D.L.

2.2 PRECAST CONCRETE [XC1]

- Precast elements shall be approved by director of works.
- Shop drawings must be approved by site supervisor.
- Coring or drilling into precast elements to be evaluated by precast manufacturer and approved by Site Supervisor.
- Prior to any construction activity of precast elements the contractor shall submit all the relevant certifications for approval by site supervisor.
- Assembly, transport and lifting machines are exclusive of the contractor. Erection sequence must be in accordance with the support system shown on the design drawings.
- Bearing devices must be fixed and secured before assembly activity.
- Temporary stability shall be assured during construction activity by the contractor, whom is responsible at all times for the safety of the structure during erection.

Figure 01 - Rebar Bending Rules



Overlapping lengths 'L o' overlapping not good condition unless otherwise noted

Overlapping lengths 'L o' overlapping good condition unless otherwise noted

d [mm]	L_0 (T56) [mm]
8	600
10	750
12	900
14	1050
16	1200
20	1500
24	1800
26	1950
30	2250
32	2400

d [mm]	L_0 (S06) [mm]
8	400
10	500
12	600
14	700
16	800
20	1000
24	1200
26	1300
30	1500
32	1600

REBAR STEEL
- Reinforcing bars must comply with B450C of NTC2018 Nominal diameter (mm): from 8 to 40
- Min Yield strength Fyk: 450 MPa
- Min Tensile strength Ftk: 540 MPa

WIRE MESH
- Welded wire mesh must comply with B450C of NTC2018
- Nominal diameter (mm): from 4 to 12
- Min Yield strength Fyk: 450 MPa
- Min Tensile strength Ftk: 540 MPa

TABLE 01 - Limit values for the composition and properties of concrete

	EXPOSURE CLASSES																
	No risk	Corrosion induced by carbonation				Corrosion induced by clorides						Freeze / Thaw attack				Chemical attack	
						Sea water			Other clorides								
	X0	XC1	XC2	XC3	XC4	XS1	XS2	XS3	XD1	XD2	XD3	XF1	XF2	XF3	XF4	XA1	XA2	XA3
Maximum water / cement ratio		0,65	0,60	0,55	0,50	0,50	0,45	0,45	0,55	0,55	0,45	0,55	0,55	0,50	0,45	0,55	0,50	0,45
Minimum resistance class	C12/15	C20/25	C25/30	C30/37	C30/37	C30/37	C35/45	C35/45	C30/37	C30/37	C35/45	30/37	25/30	30/37	30/37	30/37	30/37	35/45
Minimum cement quantity (kg/mc)		260	280	280	300	300	320	340	300	300	320	300	300	320	340	300	320	360
Minimum air content (%)												-	4,0 (a)	4,0 (a)	4,0 (a)			
Other requirements												Aggregates compliant with UNI EN 12620 with adequate frost/thaw resistanze				Sulfate resistant cement (b)		

(a) When the concrete contains no embedded air, the performance of the concrete should be tested according to an appropriate test method against a concrete that has been demonstrated to be freeze/thaw resistant for the relevant exposure class.
(b) Where the presence of sulfates results in exposure classes XA2 and XA3, it is essential to use a sulfate-resistant cement in accordance with UNI 9156
(c) When the k-value concept is applied, the maximum w/c ratio and minimum cement content are modified in accordance with 52.5.2

TABLE 02 - EXPOSURE CLASSES

CLASS	DESCRIPTION	EXAMPLES
1. No risk of corrosion attack		
X0	For concrete without reinforcement or X0 embedded metal: all exposures except where there is freeze/thaw, abrasion or chemical attack. For concrete with reinforcement or embedded very dry	Concrete inside buildings with very low air humidity
2. Corrosion induced by carbonation		
XC1	Dry or permanently wet	Concrete inside buildings with low air humidity. Concrete permanently submerged in water
XC2	Wet, rarely dry	Concrete surfaces subject to long-term water contact. Many foundations
XC3	Moderate humidity	Concrete inside the buildings with moderate or high air humidity. External concrete sheltered from rain
XC4	Ciclic wet and dry	Concrete surfaces subject to water contact not within exposure class XC2

NOTE: DIFFERENT EXPOSURE CLASSES COULD BE PRESCRIBED BY THE DRAWINGS

2.3 STRUCTURAL STEEL

TABLE 03 - Execution Class to EN1090-2

	Class / Category	Ref. Standards	Notes
Consequence Class	CC2	Prospetto B.1 EN1990	
Service Class	SC1	Tab. B.1 EN1090-2	
Production Category	PC1 / PC2	Tab. B.2 EN1090-2	
Execution Class	EXC2	Tab. B.3 EN1090-2	(1)

Note:
(1) If otherwise indicated within the tender specifications or on structural drawings the most restrictive requirement shall be applied.

A. DESIGN SPECIFICATIONS FOR STRUCTURAL STEEL

All specifications for Structural Steel members and bolts are provided in the Table 03 below.

TABLE 04 - Material specifications for structural steel elements

MATERIALS	- HOT ROLLED STRUCTURAL SECTIONS - UNI EN 10025 : 2005 - STRUCTURAL HOLLOW SECTIONS - UNI EN 10210-1 : 2006 - METAL DECKS - UN EN 10346: 2009		
	HOT ROLLED SECTIONS	METAL DECKS	HOLLOW SECTIONS
	S 235 JRG2	S 235 JRG2	S 235 H JRG2
	S 235 J0	S 235 J0	S 235 H J0
	S 235 J2G3	S 235 J2G3	S 235 H J2G3
	S 275 JR	S 275 JR	S 275 H JR
DX0	S 275 J0	S 275 J0	S 275 H J0
	S 275 J2G3	S 275 J2G3	S 275 H J2G3
	S 355 JR	S 355 JR	S 355 H JR
DX0	S 355 J0	S 355 J0	S 355 H J0
	S 355 J2G3	S 355 J2G3	S 355 H J2G3
	S 355 K2G3	S 355 K2G3	S 355 H K2G3

STEEL PROTECTION TREATMENT	Untreated	Sanbiasting SA 2 1/2	Hot-Dip galvanised 1 UNI EN ISO 1461 : 2009
			Hot-Dip Galvanising
			Primed according to specifications
BOLTS PROTECTION TREATMENT	Black	Galvanizing (electrolitic) UNI EN ISO 4042 : 2003	Hot-Dip Galvanising

BOLTS & NUTS	d =	6	12	16	18	20	24	27	30
8.8 - UN EN ISO 4016 : 2011 UNI EN 14399:2005 UNI EN ISO 898-1 : 2009	S	90	225	309	439	759	1110	1508	
10.9 - UN EN ISO 4016 : 2011 UNI EN 14399:2005 UNI EN ISO 898-1 : 2009	S	113	281	387	549	949	1388	1885	

$S = k \cdot d \cdot F_{pC}$ (with k = 0,16)
S = tightening torque (Nm)
according to D.M. 14.01.08

d = 12 mm per d ≤ 20 mm
d = 2,5 mm per d > 20 mm
PARTE NON FILETTATA PARI ALLA SOMMA DELLO SPESSORE

REF. STANDARDS	- LEGGE 05.11.71 N. 1086	- D.M. 01.18	- CIRC. 02.19	- UNI EN 1090	- UNI EN 1993 (EC3)
PROCEDURES - TOLLERANCES - CHECKS AS PER GENRAL NOTES AND SPECIFICATIONS					

- Design and fabrication of all the "Steel to Steel" and splices shall be by the steelwork sub-contractor to be in accordance with the design intent details provided in the structural drawings.
- All connection plates angles and brackets shall be kept within the perimeter of main steel member sections. No projection beyond the main members shall be allowed.
- All secondary steelwork and brackets and fixings required for the installation of lifts, cladding, windows, internal partitions, M&E services shall be designed, fabricated, supplied and installed by the relevant trade subcontractors.

B. BOLTED CONNECTIONS

- Together with compliance with the National and European standards, for both standard and high strength bolts, it is compulsory to use dynamometric tightening tools and to adopt washers for each and every bolt, at the bolt head or under the nuts. The non threaded length, must be equal to the sum of the connecting plate thicknesses.
- Use of maximum three washers is allowed under the nuts.
- Connections types are provided in the typical structural detail drawings; tightening of bolts must be in accordance to EN 1090-2.
- For shear connections with no bolt tightening control, it is assumed that 70% of the tightening torque required for equivalent friction bolts with tightening control is adopted according to UNI EN 14399.
- The contractor shall provide assistance to allow the director of works to verify the tightening force on site on main connection type samples by means of already calibrated dynamometric tools provided by the contractor.

C. HOLDING DOWN BOLTS ASSEMBLIES

- All holding down bolt assemblies shall be made of grade 8.8 anchor bars
- All fastener and washers shall be supplied with color coded system, based on fastener diameter.
- Levelling nuts shall be provided for erection purposes under each column base plate.
- Steel packing and high strength non-shrinkable mortar grouting (≥70 MPa @ 28 days) shall be provided under each base plate connection.
- Double fasteners are to be adopted for each holding down bar of Moment Resisting Frame base plates.

D. WELDS

All features regarding types of welds allowed in this project are shown in following table

TABLE 05 - Typical schemes for welds

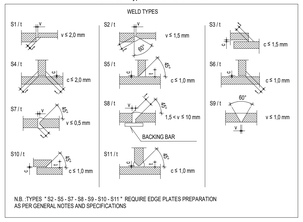


TABLE 05 - General notes on welds

NOTE: UNLESS NOTED OTHERWISE, ALL CONNECTIONS ARE TO BE INTENDED AS WELDED CONNECTIONS. WELDS ARE TO BE INTENDED AS FULL PENETRATIONS WELDS CLASS (X-RAYS CHECKS) OR FILLET WELDS WITH EFFECTIVE THROUGH THK a > 0,7 MINIMUM PLATE THICKNESS TO BE WELDED (MAGNETIC CHECK). WELDING PROCESS CAN EITHER BE MANUAL WITH APPROVED ELECTRODES, OR AUTOMATIC WITH GAS PROTECTION. THE BASE WELDING MATERIAL SHALL GUARANTEE AT LEAST THE SAME PROPERTIES OF THE PRESCRIBED STRUCTURAL STEEL

2.4 BASE PLATE GROUTING

- Under each structural column base plate, grouting layer shall be provided with thickness between 25 and 50 mm. The grouting layer shall be made of proprietary non-shrink grout (i.e. EMACO S55).

2.5 ANCHORS FOR NON-STRUCTURAL ELEMENTS

- Epoxy anchors shall be provided made of steel grade 8.8 and be installed strictly in accordance with the manufacturer specifications.
- When adopting chemical anchors made of reinforcing base, these shall be installed with suitable epoxy resins as certified by the manufacturer.
- Diameter and embedment depth of each anchor shall be strictly in accordance with the manufacture specifications.
- All anchors restraining non-structural elements and MEP equipment shall be compliant with Class C1 (minimum) anchors as specified in EOTA TR045.
- Non-structural partitions shall be terminated under structural decks leaving a minimum gap of 20 mm to be sealed with suitable elastic material.

3. FOUNDATIONS

- The contractor is responsible for setting out, construction and testing of all foundation types in accordance with the parameter laid down in the Geotechnical Report.

4. FLOOR FLATNESS

Finish surfaces according to the following tolerances, in accordance with ASTM E1155, for a randomly trafficked floor surface:
Data Hall Slabs on Ground:
Specified overall values of flatness, F_F 45; and of levelness, F_L 35; with minimum local values of flatness,F_F 40; and of levelness, F_L 20.
Other Slabs on Ground:
Specified overall values of flatness, F_F 35; and of levelness, F_L 25; with minimum local values of flatness, F_F 24; and of levelness, F_L 17.

5. EARTHING

For earthing provisions within structural elements, refer to the MEP package, and specifically to the drawing EG501.

1. NOTE GENERALI SUI DISEGNI

- Tutti i disegni strutturali sono da leggere congiuntamente con i disegni e le specifiche degli architetti, impiantisti e tutti gli specialisti di riferimento.
- Tutti i livelli mostrati nei disegni strutturali sono in metri (m) se non altrimenti specificato.
- Tutte le dimensioni mostrate nei disegni strutturali sono in centimetri (cm) o millimetri (mm) se non altrimenti specificato.
- Le dimensioni degli elementi strutturali mostrati nelle piante e nelle sezioni dei disegni strutturali si intendono come dimensioni nominali della struttura indeformata.
- Le aperture dei solai e i cavedi devono essere verificati con i disegni degli architetti e degli impiantisti e tutte le aperture dei solai e i cavedi piu' piccoli di 300mm x 300mm non sono mostrati nei disegni strutturali.
- L'appaltatore deve verificare che tutte le aperture richieste nei solai e nei muri siano correttamente indicate nel pacchetto costruttivo dei disegni strutturali.
- Per la disposizione dei getti e dei fissaggi meccanici nella struttura principale richiesti per supportare elementi appartenenti a lavori di sub-appaltatori, fare riferimento ai disegni dei sub-appaltatori di riferimento.
- In nessun caso si potranno eseguire fori o altre aperture che non rispettano le dimensioni, in qualsiasi parte della struttura senza previa approvazione dell'Ingegnere Strutturista / D.L.
- Per tutti gli assi e le impostazioni fare riferimento ai disegni architettonici.
- Per tutte le dimensioni dei muri di partizione, controsoffitti e altri elementi non strutturali fare riferimento ai disegni architettonici.
L'appaltatore dovra' installare tutti gli elementi non-strutturali nel rispetto delle regole sismiche vigenti dopiste dalle NTC2018.
- Tutti i materiali e la manodopera dovra' essere conforme con le relative specifiche di strurrurali, la norma italiana vigente e i regolamenti europei.
- Tutti i produttori dei prodotti strutturali identificati nei disegni e nella documentazione progettuale sono indicativi. L'appaltatore puo' adoperare diversi produttori ma con prestazioni equivalenti da sottoporre all'approvazione dell'Ingenere Strutturista / D.L.
- Per i dettagli dei sistemi di drenaggio sia interrati che fuori terra riferirsi ai disegni e alle specifiche dell'Impiantista.
- Per i dettagli degli scarichi dei servizi riferirsi ai disegni e alle specifiche dell'Impiantista.
- Tutti i dettagli di impermeabilizzazione e barriere a vapore fuori terra da disporsi secondo le specifiche dell'Architetto.

2. NOTE GENERALI SUI MATERIALI

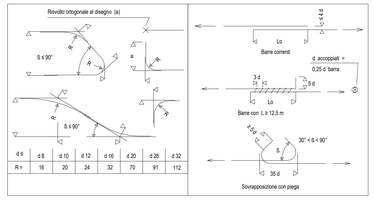
2.1 CEMENTO ARMATO (GETTATO IN OPERA)

- Ciascun elemento da annegare nelle strutture in c.a. dovra' essere approvato dalla direzione dei lavori. approvate dalla architetto / sedi supervisore.
- I giunti di costruzione devono essere installati in posizioni indicate o ornamentali, l'appaltatore e' tenuto ad applicare i sistemi
- In aree come WC, balconi, coperture e terrazze e vasche d'acqua impermeabilizzanti disposti nel progetto architettonico. miscela e le certificazioni degli opportuni additivi
- L'impresa deve presenare per approvazione il mix design della alla Direzione lavori. protetto per mezzo di una membrana di polietilene.
- Per 10 giorni dalla data del getto, il calcestruzzo deve essere
- Gli elaborati costruttivi di armatura dovranno essere preparati dall'appaltatore su richiesta del direttore dei lavori includendo tutti i dettagli, gli inserti e le armature aggiuntive.
- Tutti gli spigoli dovranno presentare un cianfrino di 10 -15mm.
- La posizione dei giunti di costruzione/riprese di getto dovra' essere tale da non condizionare la stabilita' e l'aspetto della costruzione. Le posizioni dovranno preventivamente essere approvate dal direttore dei lavori.
- Sono proibiti getti per temperature sopra ai 32 ° e sotto ai 0°C. L'uso di additivi puo essere adottato per getti in temperatore al di fuori del range specificato previa approvazine della D.L.

2.2 CEMENTO ARMATO PRECOMPRESSO

- Gli elementi prefabbricati devono essere approvati dalla D.L.
- Le tavole costruttive dovranno essere approvate dalla D.L.
- I carotaggi o le perforazioni negli elementi prefabbricati devono essere valutati dal produttore di prefabbricati e approvati dalla D.L.
- La fasi di assemblaggio, trasporto e sollevamento sono di onere esclusivo dell'appaltatore.
- I dispositivi di appoggio devono essere fissati prima i ogni montaggio.
- La stabilita' temporanea durante l'attività di costruzione e' onere dell'appaltatore.

Figura 01 - Regole di piegatura barre



Lunghezza di sovrapposizione 'L o' in condizioni non buone dove non diversamente specificato

Lunghezza di sovrapposizione 'L o' in condizioni buone dove non diversamente specificato

d [mm]	L_0 (T56) [mm]
8	600
10	750
12	900
14	1050
16	1200
20	1500
24	1800
26	1950
30	2250
32	2400

d [mm]	L_0 (S06) [mm]
8	400
10	500
12	600
14	700
16	800
20	1000
24	1200
26	1300
30	1500
32	1600

ACCIAIO DI ARMATURA
- Le barre di armatura devono essere conformi a NTC 18
- Diametro (mm) da 8 a 40
- Fy (snervamento) 450 MPa
- Fu (resistenza ultima) 540 MPa

RETE ELETTROSALDATA
- La rete elettrosaldata deve essere conforme a NCT 18
- Diametro (mm) da 4 a 12
- Fy (snervamento) 450 MPa
- Fu (resistenza ultima) 540 MPa

TABELLA 01 - Valori limiti per la composizione e le proprietà del calcestruzzo

	CLASSI DI ESPOSIZIONE																	
	Nessun rischio di corrosione dell'armatura	Corrosione delle armature indotta dalla carbonatazione				Corrosione delle armature indotta da cloruri						Attacco da cicli di gelo/disgelo				Ambiente aggressivo per attacco chimico		
						Acqua di mare			Cloruri provenienti da altre fonti									
	X0	XC1	XC2	XC3	XC4	XS1	XS2	XS3	XD1	XD2	XD3	XF1	XF2	XF3	XF4	XA1	XA2	XA3
Massimo rapporto acqua/cemento	-	0,65	0,60	0,55	0,50	0,50	0,45	0,45	0,55	0,55	0,45	0,55	0,55	0,50	0,45	0,55	0,50	0,45
Minima classe di resistenza	C12/15	C20/25	C25/30	C30/37	C30/37	C30/37	C35/45	C35/45	C30/37	C30/37	C35/45	30/37	25/30	30/37	30/37	30/37	30/37	35/45
Minimo contenuto di cemento (kg/mc)		260	280	280	300	300	320	340	300	300	320	300	300	320	340	300	320	360
Contenuto minimo di aria (%)												-	4,0 (a)	4,0 (a)	4,0 (a)			
Altri requisiti												Aggregati conformi alla UNI EN 12620 di adeguata resistenza al gelo/disgelo				E' richiesto l'impiego di cementi resistenti ai solfati (b)		

(a) Quando il calcestruzzo non contiene aria ingiobata, si dovrebbe sottoporre a prova la prestazione del calcestruzzo secondo un metodo di prova appropriato rispetto ad un calcestruzzo di cui è stata dimostrata la resistenza al gelo / disgelo per la classe di esposizione pertinente.
(b) Qualora la presenza di solfati comporti le classi di esposizione XA2 e XA3 è essenziale utilizzare un cemento resistente ai solfati secondo UNI 9156.
(c) Quando si applica il concetto del valore k il rapporto massimo w/c e il contenuto minimo di cemento si modificano in conformità al punto 52.5.2

TABELLA 02 - Classi di esposizione

CLASSE	DESCRIZIONE AMBIENTE	TIPOLOGIA DI SITUAZIONE
1. Assenza di rischio di corrosione o attacco		
X0	Calcestruzzo privo di armatura o inserti metallici: tutte le esposizioni eccetto dove c'è gelo/disgelo, abrasione o attacco chimico Calcestruzzo con armatura o inserti metallici: molto asciutto	Calcestruzzo all'interno di edifici con umidità dell'aria molto bassa
2. Corrosione indotta da carbonatazione		
Nel caso in cui il calcestruzzo contenente armature o inserti metallici sia esposto all'aria e all'umidità, l'esposizione sarà classificata nel modo seguente: Nota: le condizioni di umidità si riferiscono a quelle presenti nel copriferro o nel ricoprimento di inserti metallici, ma in molti casi si può considerare che tali condizioni riflettano quelle dell'ambiente circostante; questo può non essere il caso se c'è una barriera fra il calcestruzzo di il suo ambiente.		
XC1	Asciutto o permanentemente bagnato	Calcestruzzo all'interno di edifici con bassa umidità relativa Calcestruzzo costantemente immerso in acqua
XC2	Bagnato, raramente asciutto	Superfici di calcestruzzo a contatto con acqua per lungo tempo. Molte fondazioni
XC3	Umidità moderata	Calcestruzzo all'interno di edifici con umidità dell'aria moderata oppure elevata Calcestruzzo esposto all'esterno protetto dalla pioggia
XC4	Ciclicamente bagnato ed asciutto	Superfici di calcestruzzo soggette al contatto con acqua, non nella classe di esposizione XC2

NOTA: ALTRE CLASSI POSSONO ESSERE INDICATE SULLE TAVOLE DI PROGETTO

2.3 CARPENTERIA METALLICA

TABELLA 03 - Classe di Esecuzione secondo EN 1090 - 2

	CLASSE / CATEGORIA	RIF. NORMATIVO	NOTE
Classe di Conseguenza	CC2	Prospetto B.1 EN1990	
Categoria di Servizio	SC1	Tab. B.1 EN1090-2	
Categoria di Produzione	PC1 / PC2	Tab. B.2 EN1090-2	
Classe di Esecuzione	EXC2	Tab. B.3 EN1090-2	(1)

Nota:
(1) Se diversamente indicato nelle specifiche in appalto od all'interno delle tavole, deve essere applicata la prescrizione più restrittiva.

A. CARATTERISTICHE DI PROGETTO DELLE STRUTTURE METALLICHE

Tutte le caratteristiche relative alle carpenterie metalliche, nonchè tutte le indicazioni relative alla bulloneria sono riportate nella seguente Tabella 03.

TABELLA 04 - Caratteristiche relative alle carpenterie metalliche

MATERIALI	- PROFILI STRUTTURALI LAMINATI A CALDO - UN EN 10025 : 2005 - PROFILI STRUTTURALI CAVI - UNI EN 10210-1 : 2006 - LAMIERE GRECATE - UN EN 10346: 2009		
	PROFILI	LAMIERE GRECATE	TUBI
	S 235 JRG2	S 235 JRG2	S 235 H JRG2
	S 235 J0	S 235 J0	S 235 H J0
	S 235 J2G3	S 235 J2G3	S 235 H J2G3
	S 275 JR	S 275 JR	S 275 H JR
DX0	S 275 J0	S 275 J0	S 275 H J0
	S 275 J2G3	S 275 J2G3	S 275 H J2G3
	S 355 JR	S 355 JR	S 355 H JR
DX0	S 355 J0	S 355 J0	S 355 H J0
	S 355 J2G3	S 355 J2G3	S 355 H J2G3
	S 355 K2G3	S 355 K2G3	S 355 H K2G3

PROTEZIONE CARPENTERIA	Grezzo	Sabbiatura SA 2 1/2	Zincatura a caldo 1 UNI EN ISO 1461 : 2009	Verniciatura secondo specifiche
PROTEZIONE BULLONERIA	Nera	Zincatura elettrolitica UNI EN ISO 4042 : 2003	Zincatura a caldo	

VITE DADO ROSETTA	d =	12	16	18	20	24	27	30
8.8 - UN EN ISO 4016 : 2011 UNI EN 14399:2005 UNI EN ISO 898-1 : 2009	S	90	225	309	439	759	1110	1508
10.9 - UN EN ISO 4016 : 2011 UNI EN 14399:2005 UNI EN ISO 898-1 : 2009	S	113	281	387	549	949	1388	1885

$S = k \cdot d \cdot F_{pC}$ (con k = 0,16)
S = coppia serraggio (Nm)
secondo D.M. 14.01.08

d = 12 mm per d ≤ 20 mm
d = 2,5 mm per d > 20 mm
PARTE NON FILETTATA PARI ALLA SOMMA DELLO SPESSORE

NORME TECNICHE	- LEGGE 05.11.71 N. 1086	- D.M. 01/18	- CIRC. 02.19	- UN EN 1090	- UNI EN 1993 (EC3)
PROCEDIMENTI - TOLLERANZE - CONTROLLI SECONDO SPECIFICHE					

- Il progetto costruttivo e la produzione delle strutture in acciaio e delle connessioni e' a carico dell'Appaltatore e dovra' essere conforme con il progetto delle connessioni tipiche contenute nei disegni strutturali.
- Tutti i piatti di connessione dovranno essere contenuti entro il perimetro dell'elemento in acciaio principale. Non sara' permessa la proiezione di nessun elemento al di fuori delle sagome degli elementi strutturali principali.
- Tutti gli elementi in acciaio e connessioni secondarie richieste per ascensori, facciate finestrature, partizioni interne, impianti meccanici dovranno essere progettati, prodotti, forniti ed installati dall'Appaltatore.

B. UNIONI BULLONATE

- Oltre al rispetto delle prescrizioni delle normative, è obbligatorio sia per bulloni normali che ad alta resistenza l'uso della chiave dinanometrica e l'inserimento di rosette sotto la testa del bullone e sotto il dado.
- La parte non filettata del gambo dei bulloni deve essere pari a quella delle parti da unire; è consentito eventualmente uno spesso ramento sotto al dado con non più di 3 rosette.
- Le caratteristiche della giunzione risultano riportate sulle tavole di disegno; la modalità di serraggio dei bulloni dovrà essere conforme alla EN 1090-2.
- Per le unioni a taglio, non a serraggio controllato, si prevede di utilizzare una coppia di serraggio pari al 70% di quella necessaria per le unioni ad attrito prevista per bulloni a serraggio controllato secondo UNI EN 14399.
- L'Appaltatore dovrà fornire l'adeguato supporto alla Direzione Lavori per consentire la verifica a campione in cantiere del corretto serraggio delle unioni principali tramite chiave dinamometrica tarata messa a disposizione dall'Impresa.

C. TIRAFONDI PER PIASTRE DI BASE

- Il sistema di connessione alla base dovra' essere composto da barre filettate in acciaio Classe 8.8
- Tutti i dadi e rondelle dovranno essere forniti secondo un codifica cromatica basata sul diametro del dado
- Prevedere l'utilizzo di dadi di livellamento per facilitare la corretta installazione della piastra di base di ciascuna colonna.
- Prevedere l'uso di piatti di spessoramento in acciaio e riempimento con malta antiritiro ad elevata resistenza (≥70 MPa a 28 giorni) per ciascuna piastra di base.
- Prevedere l'utilizzo di doppi dadi in ciascun tirafondo adottato per connessioni alla base di colonne

D. SALDATURE

Tutte le caratteristiche relative alle saldature sono riportate nella tabella seguente

TABELLA 05 - Schemi tipici di saldatura

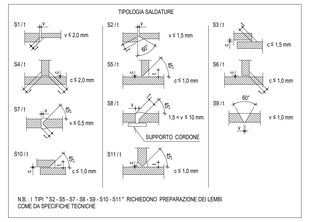


TABELLA 05 - Nota generale saldature

NOTA: OVE NON DIVERSAMENTE INDICATO, TUTTE LE UNIONI SONO DA CONSIDERARSI SALDATE. LE SALDATURE SONO DA INTENDERSI CONTINUE A COMPLETA PENETRAZIONE RADIOGRAFICO) OPPURE A CORDONI D'ANGOLO CON DI 1A CLASSE (CONTROLLO SPESSORI DI GOLA > 0,7 DELLO SPESSORE MINIMO DA SALDARE (CONTROLLO MAGNETICO). IL PROCEDIMENTO DI SALDATURA PUO' ESSERE SIA MANUALE CON ELETTRODO OMOLOGATO CHE O SEMIAUTOMATICO CON PROTEZIONE DI GAS IL MATERIALE D'APPORTO DOVRA' ESSERE TALE DA GARANTIRE LE CARATTERISTICHE PRESTAZIONALI DEL MATERIALE DI BASE.

2.4 MALTE ESPANSIVE PER PIASTRE DI BASE
- Al di sotto delle piastre di base dei pilastri deve essere colata una malta espansiva antiritiro per ancoraggi di precisione tipo EMACO S55. L' I.A. potrà proporre un tipo di malta equivalente purché le caratteristiche di resistenza a compressione rispettino la tabella riportata nelle Specifiche Tecniche.

2.5 TASSELLI E ANCORAGGI PER ELEMENTI NON STRUTTURALI
- I tasselli chimici dovranno essere forniti in acciaio di classe 8.8 ed installati secondo le specifiche del produttore.
- Quando si adottano barre di armatura come ancoraggi in resina epossidica, queste dovranno essere installate con resina epossidica adatta a questo tipo di applicazione ed secondo le specifiche del produttore.
- I diametro e la lunghezza di ancoraggio di ciascun tassello va definita strettamente secondo le specifiche del produttore.
- Tutti gli ancoraggi per elementi non strutturali ed impianti deve essere conforme con ancoraggi di Classe C1 (minimo) in accordo con EOTA TR045.
- Le pareti in blocchi, i divisori ed i tamponamenti dovranno fermarsi al di sotto dell'intradosso dell'impalcato sovrastante l asciando un giunto di spessore minimo 20mm da sigillare con idoneo materiale elestico.

3. FONDAZIONI

- L'Appaltatore e' responsabile per il tracciamento e l'esecuzione e verifica di tutti i tipi di fondazione in accordo con i parametri previsti nella Relazione Geotecnica

4. PLANARITÀ DEL PAVIMENTO

- Superfici di finitura secondo le seguenti tolleranze, in conformità alla norma ASTME1155, per una superficie di pavimento a traffico casuale:
Fondazione data hall:
Valori complessivi specificati di planarità, F F45; e di livellamento, F L35; con valori locali minimi di planarità, F F40; e di livellamento, F L20.
Altri basamenti:
Valori complessivi specificati di planarità, F F35; e di livellamento, F L25; con valori locali minimi di planarità , F F24; e di livellamento , F L17.

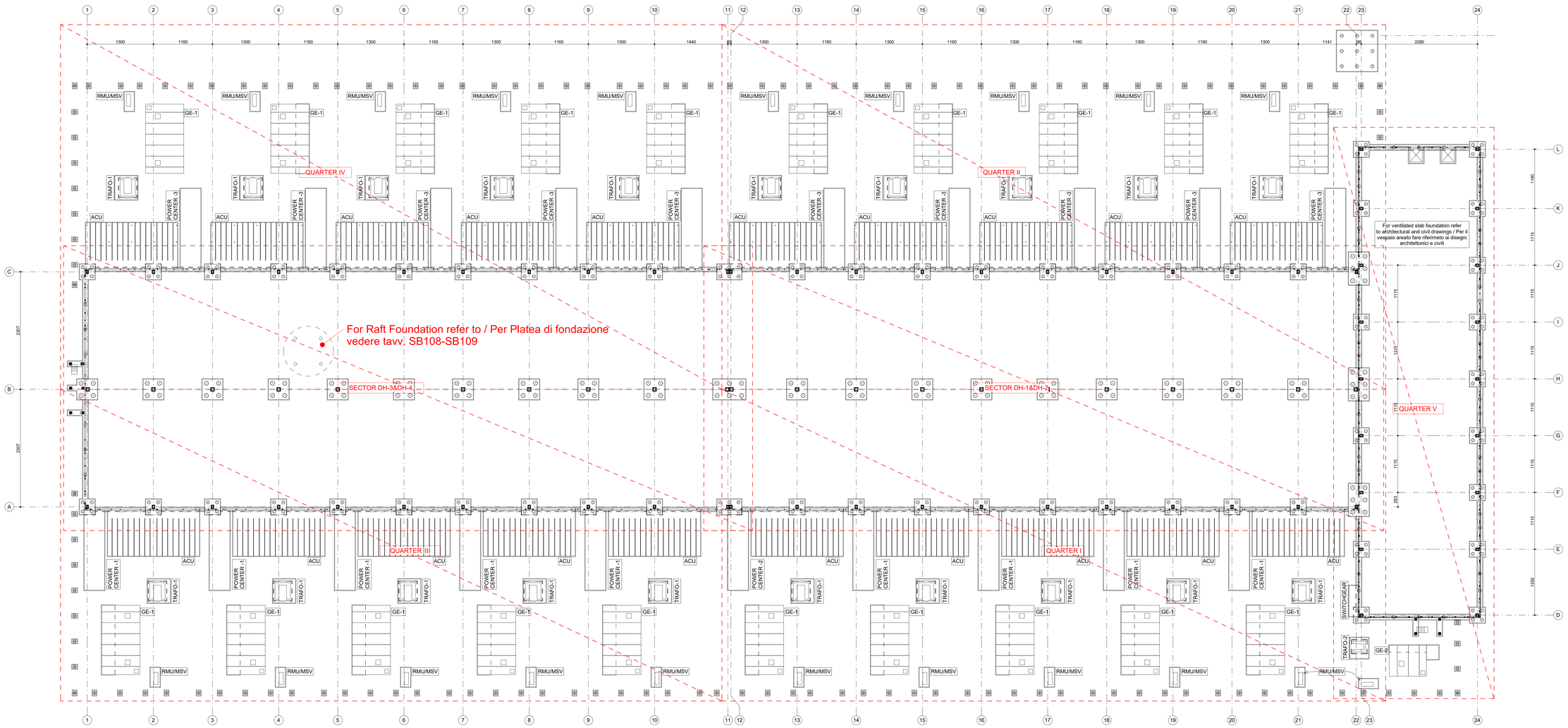
5. MESSA A TERRA

Per le disposizioni di messa a terra all'interno degli elementi strutturali, fare riferimento al pacchetto MEP e in particolare al disegno EG501.

General Notes

1. This drawing

A0 - Do not scale



General floor plan / Pianta generale - Top view / Vista dall'alto -

1 : 300

General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

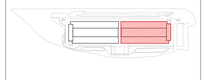
Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche a pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

300 0 300 600 900 1200

SCALE 1:300

Key Plan



Rev	Details	By / Chkd / App	Date
P02	Issued for Construction	FCT/FBH/MEG	03/02/2023
P01	Issued for Compass Review	SB/FBH/MEG	16/12/2022

Client

COMPASS

Architectural / Civil / Structural

MAESTRALE

Lead Consultant / MEP Designer

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Project Title

MXP I-I

Drawing Title

General Informations
General Plan of Quarters Subdivision

Project Status

ISSUED FOR CONSTRUCTION

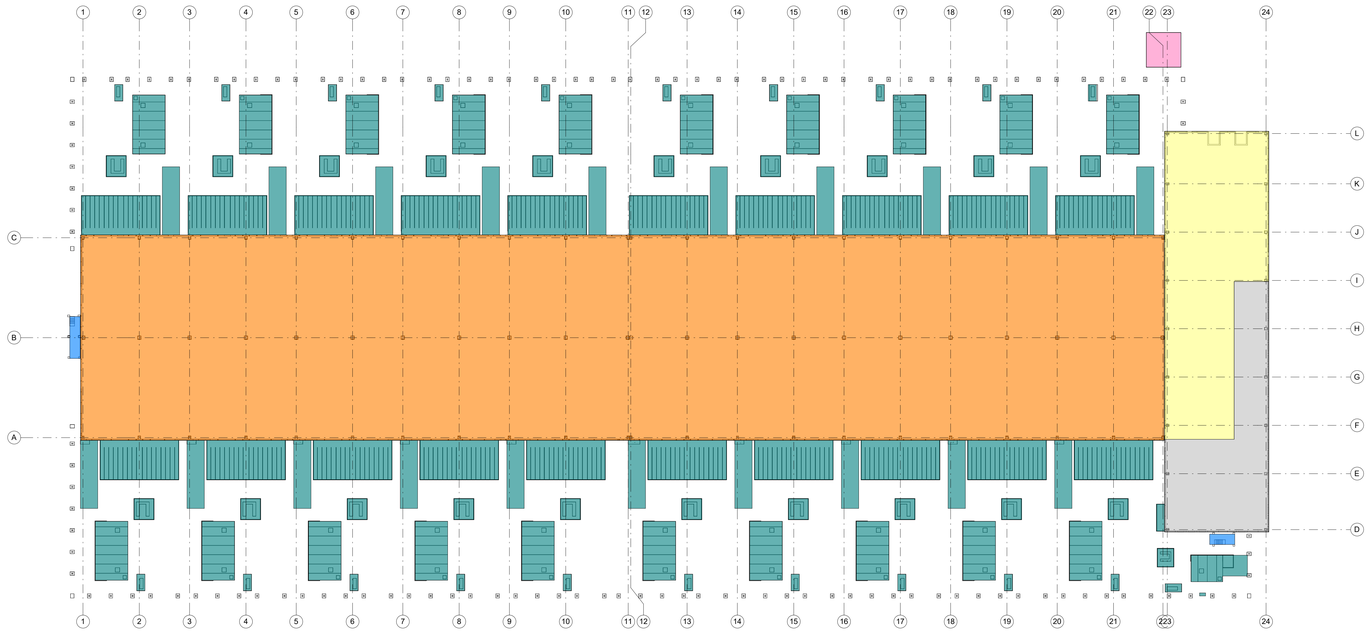
Discipline	Status Code
Structural	S5

Project Number	Scale @ A0	Revision
P10424	1:300	P02

Drawing Number

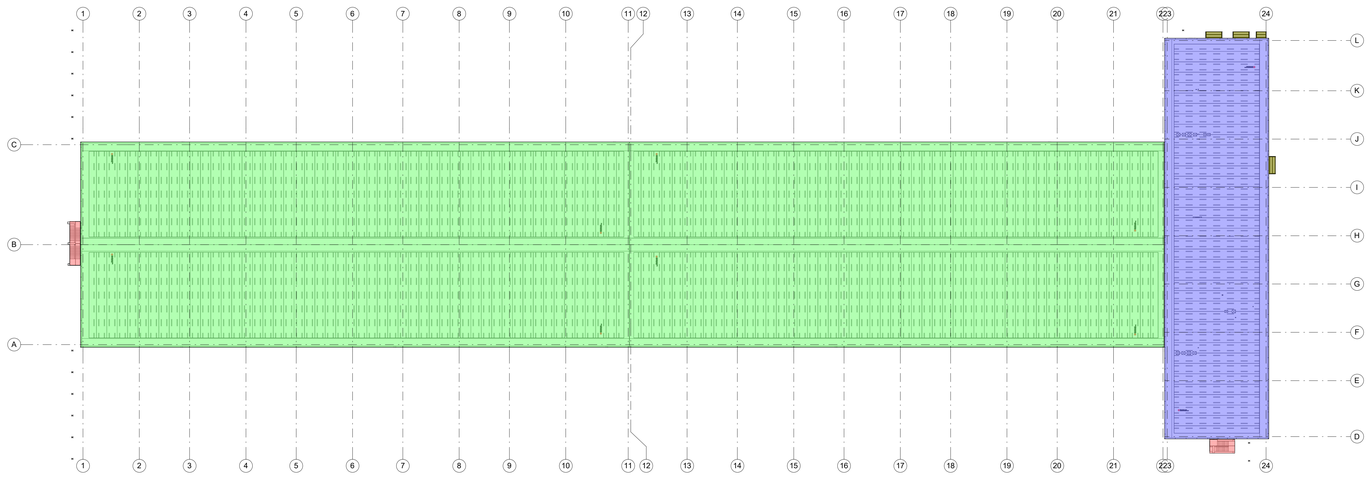
SG401

A0 - Do not scale



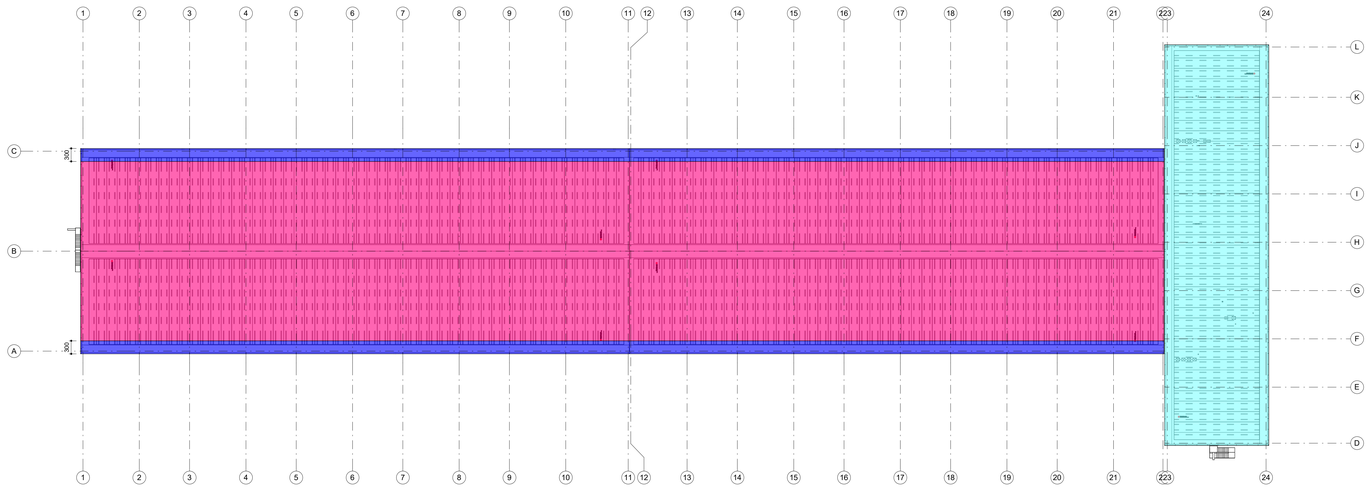
Ground Floor / Piano terra

1 : 500



Roof floor / Copertura

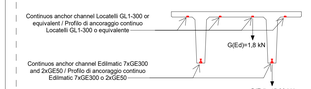
1 : 500



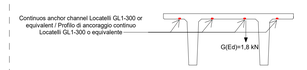
Loading Overview - Suspended loading on roof / Carichi appesi in copertura - Top view / Vista dall'alto -

1 : 500

Insert detail valid for sectors DH-3&DH-4 and DH-1&DH-2 / Dettaglio inserti valido per i settori DH-3&DH-4 e DH-1&DH-2


Continuos anchor channel Locatelli GL1-300 or equivalent / Profilo di ancoraggio continuo Locatelli GL1-300 o equivalente
Q(Ed)=1,8 kN
Continuos anchor channel Edilmatic 7xGE300 and 2xGE50 / Profilo di ancoraggio continuo Edilmatic 7xGE300 o 2xGE50
Q(Ed)=15,00 kN

Insert detail valid for Quarter V / Dettaglio inserti valido per Quadrante V (Support building)


Continuos anchor channel Locatelli GL1-300 or equivalent / Profilo di ancoraggio continuo Locatelli GL1-300 o equivalente
Q(Ed)=1,8 kN

NOTE WELL / NOTA BENE:

Maximum ultimate limit state point load for Edilmatic GE anchor channels is Q(Ed)=15,00 kN / Il carico concentrato per lo stato limite ultimo per i profili di ancoraggio incavi Edilmatic GE è di Q(Ed)=15,00 kN

Maximum ultimate limit state point load for Locatelli GL1 channels is Q(Ed)=1,8 kN / Il carico concentrato per lo stato limite ultimo per i profili di ancoraggio incavi Locatelli GL1 è di Q(Ed)=1,8 kN

In any case, overall distributed suspended load per square meter cannot exceed the values indicated on loading plans of the suspended loading overview / In ogni caso, il carico appeso complessivo distribuito al metro quadro non può superare i valori indicati nella pianta del quadro generale dei carichi appesi

Design Loads / Pianta Carichi

Superimposed Dead Load / Sovraccarico Permanente

- 0.00 kN/m2
- 4.20 kN/m2
- 4.20 kN/m2
- 0.00 kN/m2
- 0.00 kN/m2
- 330 kN Design Water capacity / Capacità utile di progetto + 90 kN selfweight of the water tank / peso proprio serbatoio

Live Loads / Sovraccarico Variabile

- 19.00 kN/m2
- 19.00 kN/m2
- 4.80 kN/m2
- 15.00 kN/m2* - see Note / vedi Note
- 4.80 kN/m2
- 1.00 kN/m2

Note:

*Represents maximum overall uniformly distributed loads. Refer to structural calculation report for loading schemes assumptions for external yard pads.
/ Rappresenta il carico massimo complessivo uniformemente distribuito. Per le ipotesi di schemi di carico dei basamenti esterni fare riferimento alla relazione di calcolo strutturale.

Vertical Loads / Pianta Carichi

Superimposed Dead Load / Sovraccarico Permanente

- 0.00 kN/m2
- 0.75 kN/m2
- 0.25 kN/m2
- 0.30 kN/m2

Live Loads / Sovraccarico Variabile

- 4.80 kN/m2
- 1.00 kN/m2
- 2.00 kN/m2* - see Note / Vedi Note
- 1.00 kN/m2

Note:

*Distributed load on the Support Building is valid only for global analysis. Double Tees at the Support Building for gravity loading shall be designed for 3.00 kN/m2.
/ Il carico distribuito del Support Building è valido solo per l'analisi globale. I tegoli doppio T in corrispondenza del Support Building devono essere progettati per sovraccarico variabile 3,00 kN/m2

Snow loading sk=1,20 kN/m2 not concurrent with the live loads indicated above / Il carico di neve sk=1,20kN/m2 non concomitante con i carichi indicati sopra

Vertical Loads / Pianta Carichi

Superimposed Dead Load / Sovraccarico Permanente

- 3.60 kN/m2* - see Note / vedi Note
- 2.40 kN/m2
- 1.00 kN/m2

Live Loads / Sovraccarico Variabile

- 0.00 kN/m2
- 0.00 kN/m2
- 0.00 kN/m2

Note:

*Calculated as 1050kg/m' /3m' + suspended ceiling weight, where 1050kg/m' is the linear weight of concentrated MEP distribution along the lateral corridors / Calcolato come 1050kg/m' /3m' + peso del controsoffitto, dove 1050kg/m' /3m' è il peso lineare della distribuzione MEP concentrata lungo i corridoi laterali

General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise noted. Verify all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
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5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
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8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
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Note generali

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3. Le dimensioni delle attrezzature e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'Ingegnere.
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7. Le quote degli elementi finiti dipendono da eventuali modifiche a pacchetti di copertura.
8. Il Committente deve coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

N

Key Plan

P02	Issued for Construction	FCT/FBH/MEG	03/02/2023
P01	Issued for Compass Review	SM/FBH/MEG	16/12/2022
Rev	Details	By / Chkd / App	Date

Client

COMPASS DEVELOPMENT

Architectural / Civil / Structural

STANTEC

MAESTRALE

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27150
Tel: +971 4 365 2226
www.bw-engineering.com

Project Title

MXP I-I

Drawing Title

General Informations
Loading Plans

Project Status

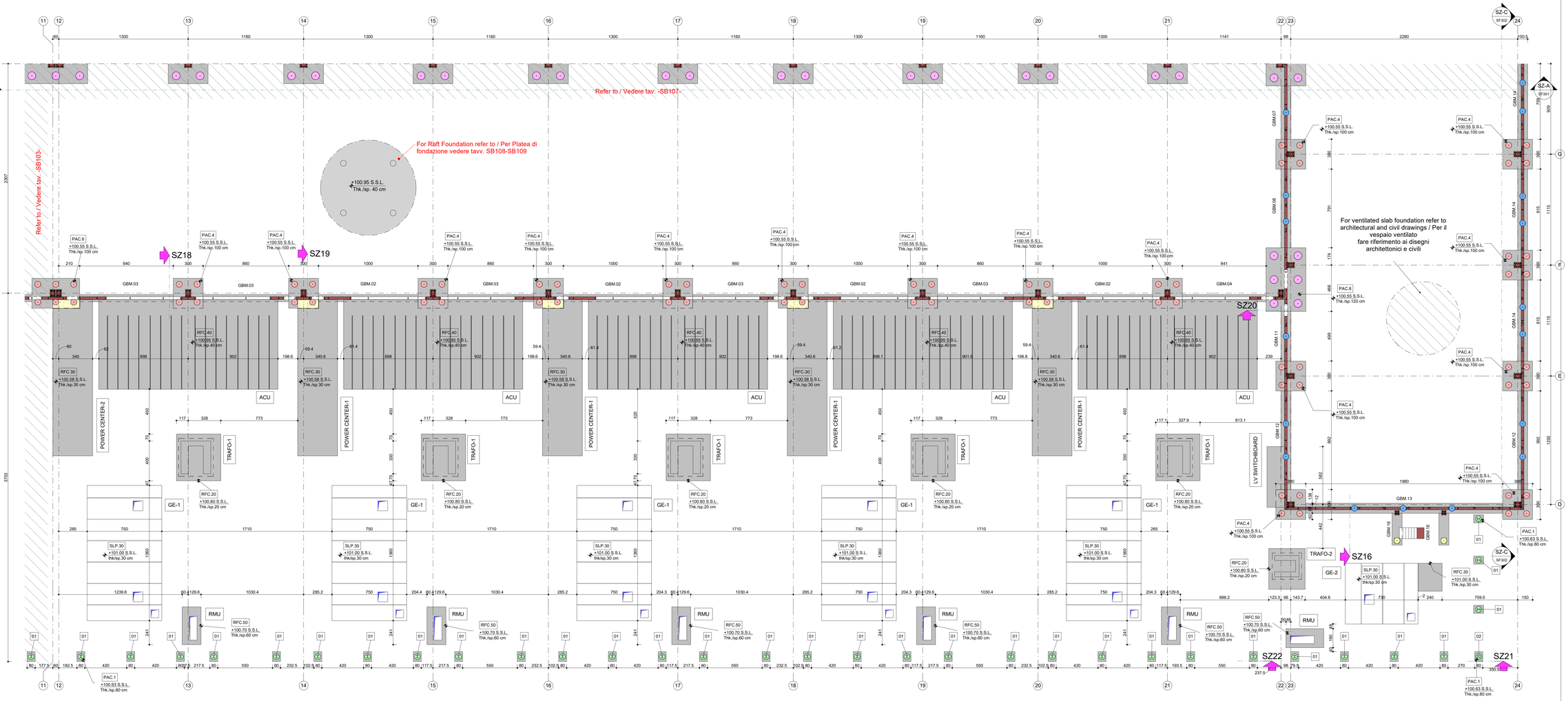
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**
Project Number	**Scale @ A0** / **Revision**
P10424	**1:500** / **P02**

Drawing Number

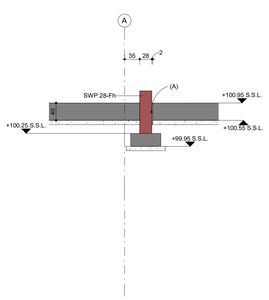
SG402

A0 - Do not scale



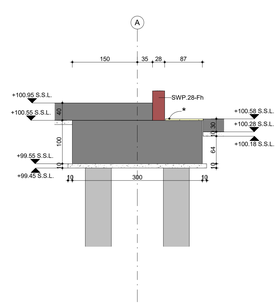
Foundations plan / Pianta di fondazione - Top view / Vista dall'alto -

1 : 150



Sect. / Sez. - SZ18 -

1 : 50



Sect. / Sez. - SZ19 -

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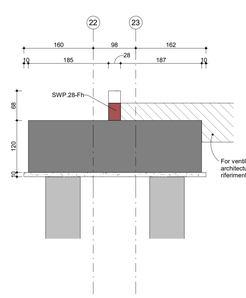
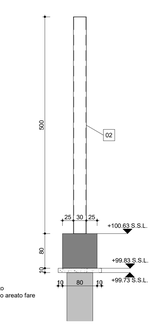

22
23
SWP.28-Fh
For ventilated slab foundation refer to architectural drawings / Per il vespaio areato fare riferimento ai disegni architettonici

Sect. / Sez. - SZ20 -

1 : 50



Sect. / Sez. - SZ21 -

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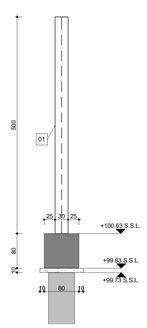


Sect. / Sez. - SZ22 -

1 : 50

Note:

Gaps with existing foundation must be sealed with non structural mortar like Masterflow Tixotropica 960TIX or equivalent / Le fessure con la fondazione esistente devono essere sigillate con malta on strutturale tipo Masterflow Tixotropica 960TIX o equivalente

* Filling with structural mortar like BASF Masterflow 928 or equivalent / Riempimento con malta strutturale tipo BASF Masterflow 928 o equivalente

** For Precast Column detail please refer to / Per dettagli su Colonne Prefabbricate vedere Tavv.: SF101 - SF102 M- SF103

Steel Column / Pilastri in acciaio

01	SCM.HE300A
02	SCM.SHS300x300x12.5

Framing Legend/Legenda travi

Type / Tipo	Dim. bxh (cm)	Length / Lungh. (cm)
GBM.01	100xh60cm	1957
GBM.02	70xh30cm	<varies>
GBM.03	70xh30cm	<varies>
GBM.04	70xh30cm	841
GBM.05	100xh60cm	581
GBM.06	100xh60cm	753
GBM.07	100xh60cm	537
GBM.08	100xh60cm	791
GBM.09	100xh60cm	860
GBM.10	100xh60cm	710
GBM.11	100xh60cm	499
GBM.12	100xh60cm	992
GBM.13	100xh60cm	1980
GBM.14	100xh60cm	815
GBM.15	100xh60cm	350
GBM.16	100xh60cm	320

Raft Legend / Legenda Platee

Type / Tipo	Thickn. / Spess. (cm)
RFC.20	20
RFC.25	25
RFC.30	30
RFC.40	40
RFC.50	60
RFC.80	80

Floor Legend / Legenda Solai

Type / Tipo	Thick. / Spess. (cm)
SLP.30	30

Ga Plans Legend / Legenda Carpenteria

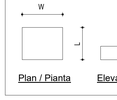
- Cast in place concrete section element / Sezione elementi gettati in opera
- Cast in place concrete element view / Elementi gettati in opera in vista
- Precast concrete section element / Sezione elementi prefabbricati
- Precast concrete element view / Elementi prefabbricati in vista
- Lean concrete section element / Sezione elementi magrone
- Structural mortar like BASF Masterflow 928 or equivalent / Riempimento con malta tipo BASF Masterflow 928 o equivalente
- * x.xx F.F.L. : Finish Floor Level in meter / Quota Pav. Finito in metri
- S.S.L. : Structural Surface Level in meter / Quota Rustico Strutturale in metri

Pile Legend / Legenda pali

Pile Type/Pali Tipo	Type / Tipo	Diameter/Diam. (cm)	Depth/Lungh. (cm)
PIC.1	PIC.d60-L12	60	1200
PIC.2	PIC.d80-L7	60	700
PIC.3	PIC.d60-L7	60	700
PIC.4	PIC.d60-L12	60	1200
PIC.5	PIC.d60-L12	60	1200
PIC.6	PIC.d80-L12	80	1200

Pad Foundation Legend / Legenda Plinti

Type / Tipo	L (cm)	W (cm)	H (cm)
PAC.1	100	80	80
PAC.2	100	80	160
PAC.3	100	185	120
PAC.4	300	300	100
PAC.5	300	300	160
PAC.6	480	300	100
PAC.7	400	400	120
PAC.8	400	640	120
PAC.9	800	800	100



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Note generali

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9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

150 0 150 300 450 600
SCALE 1:150

Key Plan

NOTE

(A) For insulation and waterproofing details refer to architectural drawings / Per i dettagli di isolamento e impermeabilizzazione fare riferimento ai disegni architettonici AE551 - AE553

Rev	Details	By / Chkd / App	Date
P03	Issued for Construction	FCT/FBH/MEG	22/02/2023
P02	Issued for Construction	FCT/FBH/MEG	03/02/2023
P01	Issued for Compass Review	SB/FBH/MEG	16/12/2022

Client

COMPASS DATACENTERS

Architectural / Civil / Structural

STUDIOENGE

MAESTRALE

ARUP

Lead Consultant / MEP Designer

Block & White Engineering
Office No. 1901
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 360 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Foundations
Foundations Plan
Quarter I

Project Status
ISSUED FOR CONSTRUCTION

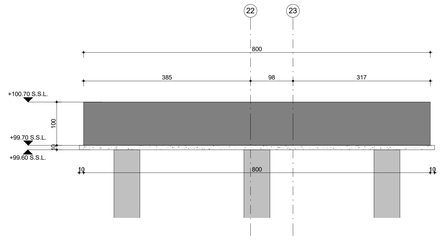
Discipline	Status Code
Structural	**S5**
Project Number	**Scale @ A0** / **Revision**
P10424	**1:150 / 1:50** / **P03**

Drawing Number
SB101

A0 - Do not scale

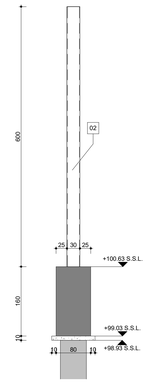
Foundations plan / Pianta di fondazione - Top view / Vista dall'alto -

1 : 150



Sect. / Sez. - SZ23 -

1 : 50



Sect. / Sez. - SZ24 -

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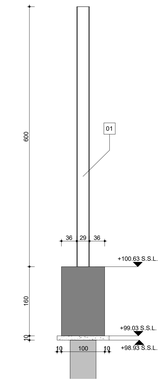

Sect. / Sez. - SZ25 -

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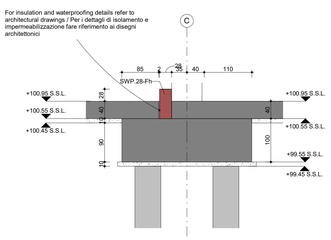

Sect. / Sez. - SZ26 -

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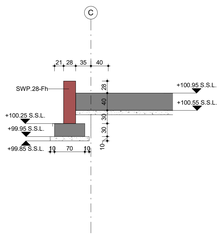

Sect. / Sez. - SZ27 -

1 : 50

Note:

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* Filling with structural mortar like BASF Masterflow 928 or equivalent / Riempimento con malta strutturale tipo BASF Masterflow 928 o equivalente

** For Precast Column detail please refer to / Per dettagli su Colonne Prefabbricate vedere Tavv.: SF101 - SF102 M- SF103

Steel Column / Pilastri in acciaio

01	SCM.HE300A
02	SCM.SHS300x300x12.5

Framing Legend/Legenda travi

Type / Tipo	Dim. bxh (cm)	Length / Lungh. (cm)
GBM.01	100xh60cm	1957
GBM.02	70xh30cm	<varies>
GBM.03	70xh30cm	<varies>
GBM.04	70xh30cm	841
GBM.05	100xh60cm	581
GBM.06	100xh60cm	753
GBM.07	100xh60cm	537
GBM.08	100xh60cm	791
GBM.09	100xh60cm	860
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GBM.11	100xh60cm	499
GBM.12	100xh60cm	992
GBM.13	100xh60cm	1980
GBM.14	100xh60cm	815
GBM.15	100xh60cm	350
GBM.16	100xh60cm	320

Raft Legend / Legenda Platee

Type / Tipo	Thickn. / Spess. (cm)
RFC.20	20
RFC.25	25
RFC.30	30
RFC.40	40
RFC.50	60
RFC.80	80

Floor Legend / Legenda Solai

Type / Tipo	Thick. / Spess. (cm)
SLP.30	30

Ga Plans Legend / Legenda Carpenteria

- Cast in place concrete section element / Sezione elementi gettati in opera
- Cast in place concrete element view / Elementi gettati in opera in vista
- Precast concrete section element / Sezione elementi prefabbricati
- Precast concrete element view / Elementi prefabbricati in vista
- Lean concrete section element / Sezione elementi magrone
- Structural mortar like BASF Masterflow 928 or equivalent / Riempimento con malta tipo BASF Masterflow 928 o equivalente
- F.F.L.: Finish Floor Level in meter / Quota Pav. Finito in metri
- S.S.L.: Structural Surface Level in meter / Quota Rustico Strutturale in metri

Pile Legend / Legenda pali

Pile Type/Pali Tipo	Type / Tipo	Diameter/Diam. (cm)	Depth/Lungh. (cm)
PIC.1	PIC.ø60-L12	60	1200
PIC.2	PIC.ø60-L7	60	700
PIC.3	PIC.ø60-L7	60	700
PIC.4	PIC.ø60-L12	60	1200
PIC.5	PIC.ø60-L12	60	1200
PIC.6	PIC.ø80-L12	80	1200

Pad Foundation Legend / Legenda Plinti

Type / Tipo	L (cm)	W (cm)	H (cm)
PAC.1	100	80	80
PAC.2	100	80	160
PAC.3	100	185	120
PAC.4	300	300	100
PAC.5	300	300	160
PAC.6	480	300	100
PAC.7	400	400	120
PAC.8	400	640	120
PAC.9	800	800	100

Plan / Pianta — Elevation / Prospetto

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9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni delle maglie strutturali sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche a pacchetti di copertura.
8. Le dimensioni e posizioni coordinate / passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

SCALE 1:150

Key Plan

NOTE

(A) For insulation and waterproofing details refer to architectural drawings / Per i dettagli di isolamento e impermeabilizzazione fare riferimento ai disegni architettonici AE551 - AE553

Rev	Details	By / Chkd / App	Date
P03	Issued for Construction	FCT/FBH/MEG	22/02/2023
P02	Issued for Construction	FCT/FBH/MEG	03/02/2023
P01	Issued for Compass Review	SM/FBH/MEG	16/12/2022

Client

COMPASS DEVELOPER

Architectural / Civil / Structural

MAESTRALE

Lead Consultant / MEP Designer

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Marina Plaza
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PO Box 27783
Tel.:+971 4 366 2228
www.bw-engineering.com

Project Title
MXP I-I

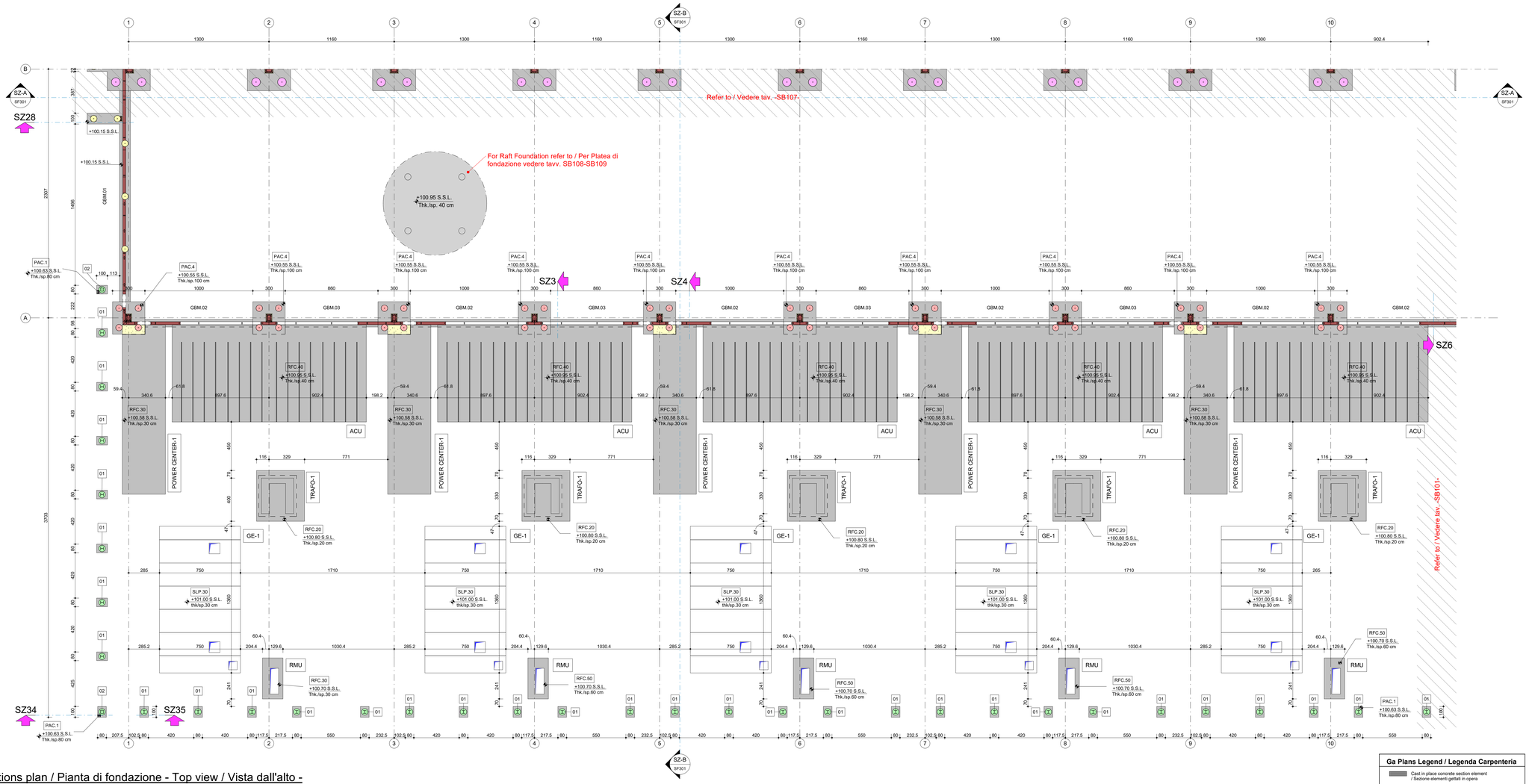
Drawing Title
Foundations
Foundations Plan
Quarter II

Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	S5
Project Number	**Scale @ A0** / **Revision**
P10424	1:150 / 1:50 / P03

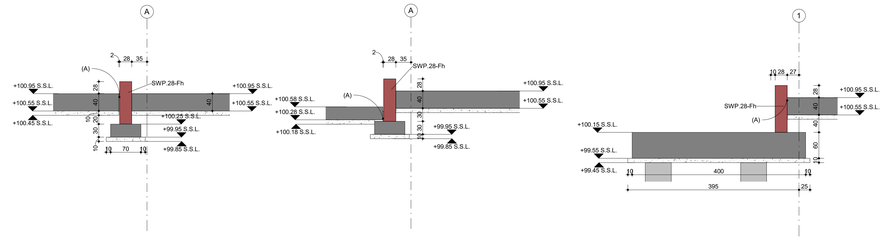
Drawing Number
SB102

A0 - Do not scale



Foundations plan / Pianta di fondazione - Top view / Vista dall'alto -

1 : 150



Sect. / Sez. - SZ3 -

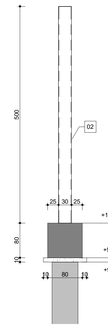
1 : 50

Sect. / Sez. - SZ4 -

1 : 50

Sect. / Sez. - SZ28 -

1 : 50



Sect. / Sez. - SZ34 -

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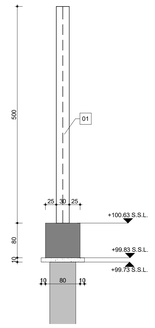


Sect. / Sez. - SZ35 -

1 : 50

Note:

Gaps with existing foundation must be sealed with non structural mortar like Masterflow Tixotropica 960TIX or equivalent / Le fessure con la fondazione esistente devono essere sigillate con malta on strutturale tipo Masterflow Tixotropica 960TIX o equivalente

* Filling with structural mortar like BASF Masterflow 928 or equivalent / Riempimento con malta strutturale tipo BASF Masterflow 928 o equivalente

** For Precast Column detail please refer to / Per dettagli su Colonne Prefabbricate vedere Tavv.: SF101 - SF102 M- SF103

Steel Column / Pilastri in acciaio

01	SCM.HE300A
02	SCM.SHS300x300x12.5

Framing Legend/Legenda travi

Type / Tipo	Dim. bxh (cm)	Length / Lungh. (cm)
GBM.01	100xh60cm	1957
GBM.02	70xh30cm	<varies>
GBM.03	70xh30cm	<varies>
GBM.04	70xh30cm	841
GBM.05	100xh60cm	581
GBM.06	100xh60cm	753
GBM.07	100xh60cm	537
GBM.08	100xh60cm	791
GBM.09	100xh60cm	860
GBM.10	100xh60cm	710
GBM.11	100xh60cm	499
GBM.12	100xh60cm	992
GBM.13	100xh60cm	1980
GBM.14	100xh60cm	815
GBM.15	100xh60cm	300
GBM.16	100xh60cm	320

Raft Legend / Legenda Platee

Type / Tipo	Thickn. / Spess. (cm)
RFC.20	20
RFC.25	25
RFC.30	30
RFC.40	40
RFC.50	60
RFC.60	80

Floor Legend / Legenda Solai

Type / Tipo	Thick. / Spess. (cm)
SLP.30	30

Ga Plans Legend / Legenda Carpenteria

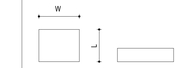
- Cast in place concrete section element / Sezione elementi gettati in opera
- Cast in place concrete element view / Elementi gettati in opera in vista
- Precast concrete section element / Sezione elementi prefabbricati
- Precast concrete element view / Elementi prefabbricati in vista
- Lean concrete section element / Sezione elementi magrone
- Structural mortar like BASF Masterflow 928 or equivalent / Riempimento con malta tipo BASF Masterflow 928 o equivalente
- F.F.L : Finish Floor Level in meter / Quota Pav. Finito in metri
- S.S.L : Structural Surface Level in meter / Quota Rustico Strutturale in metri

Pile Legend / Legenda pali

Pile Type/Pali Tipo	Type / Tipo	Diameter/Diam. (cm)	Depth/Lungh. (cm)
PIC.1	PIC.d60-L12	60	1200
PIC.2	PIC.d80-L7	60	700
PIC.3	PIC.d60-L7	60	700
PIC.4	PIC.d60-L12	60	1200
PIC.5	PIC.d60-L12	60	1200
PIC.6	PIC.d80-L12	80	1200

Pad Foundation Legend / Legenda Plinti

Type / Tipo	L (cm)	W (cm)	H (cm)
PAC.1	100	80	80
PAC.2	100	80	160
PAC.3	100	185	120
PAC.4	300	300	100
PAC.5	300	300	160
PAC.6	480	300	100
PAC.7	400	400	120
PAC.8	400	640	120
PAC.9	800	800	100



Plan / Pianta — Elevation / Prospetto

General Notes

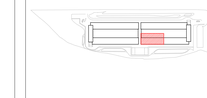
1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Verify all measurements on site.
3. All reinforcement and cement dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni delle armature e dei cementi sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta consciendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche a pacchetti di copertura.
8. Il Committente deve coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

150 0 150 300 450 600
SCALE 1:150

Key Plan



NOTE

(A) For insulation and waterproofing details refer to architectural drawings / Per i dettagli di isolamento e impermeabilizzazione fare riferimento ai disegni architettonici AE551 - AE553

P03	Issued for Construction	FC/TF/BH/MEG 23/02/2023
P02	Issued for Construction	FC/TF/BH/MEG 03/02/2023
P01	Issued for Compass Review	BM/FBH/MEG 16/12/2022
Rev	Details	By / Chkd / App Date

Client

COMPASS RESIDENCES

Architectural / Civil / Structural

MAESTRALE

Lead Consultant / MEP Designer

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Project Title
MXP I-I

Drawing Title
Foundations
Foundations Plan
Quarter III

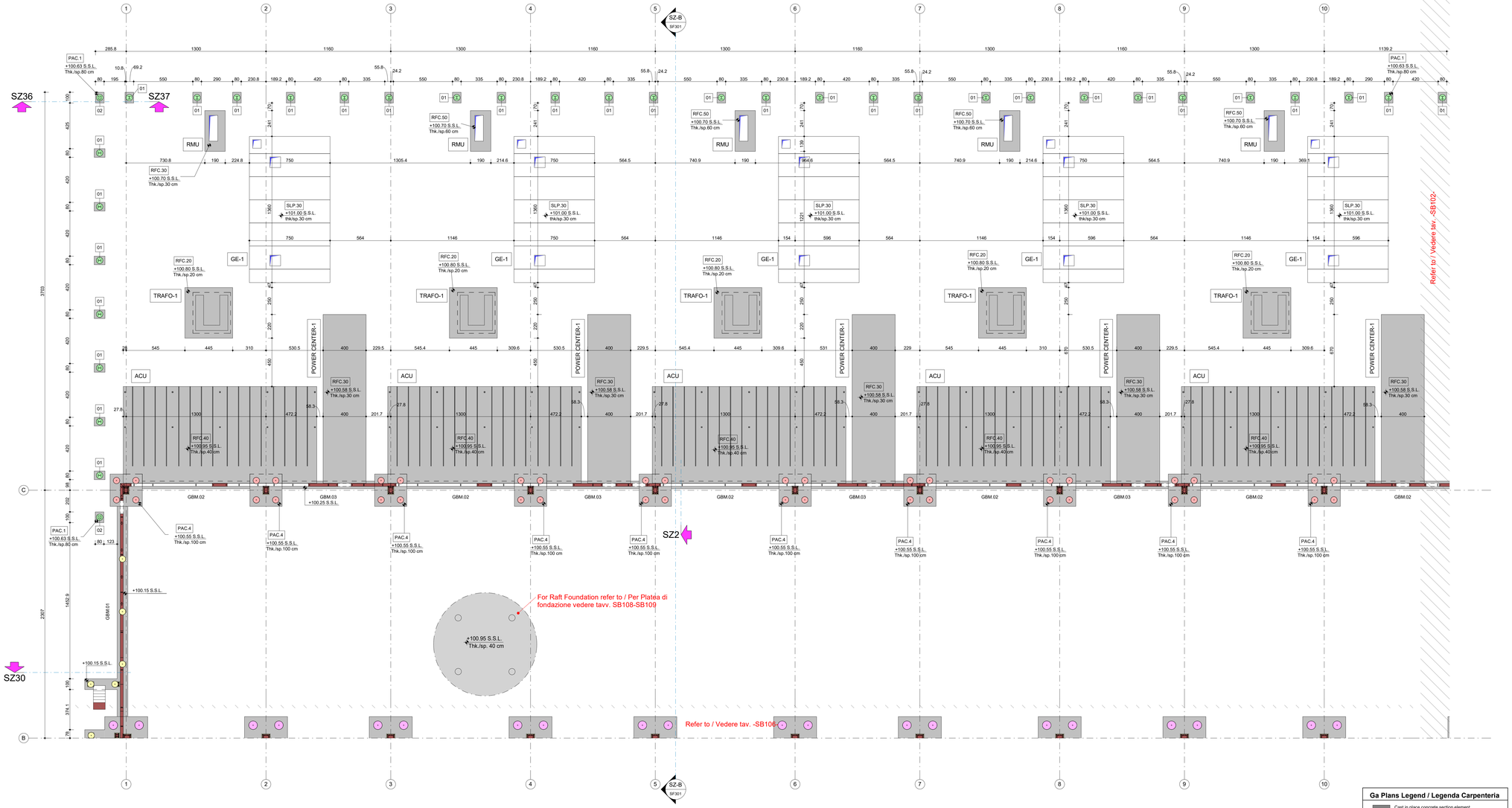
Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	S5

Project Number	Scale @ A0	Revision
P10424	1:150 / 1:50	P03

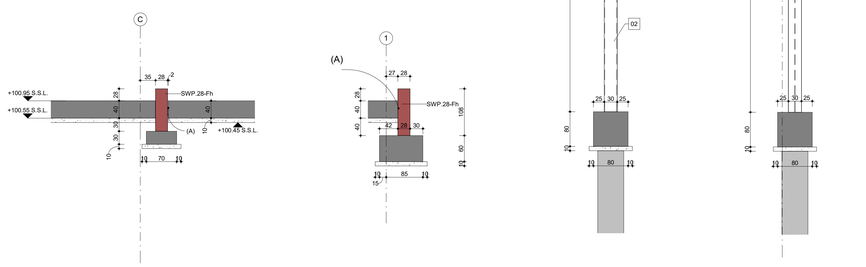
Drawing Number
SB103

A0 - Do not scale



Foundations plan / Pianta di fondazione - Top view / Vista dall'alto -

1 : 150



Sect. / Sez. - SZ2 -
1 : 50

Sect. / Sez. - SZ30 -
1 : 50

Sect. / Sez. - SZ36 -
1 : 50

Sect. / Sez. - SZ37 -
1 : 50

Note:

Gaps with existing foundation must be sealed with non structural mortar like Masterflow Tixotropica 9607IX or equivalent / Le fessure con la fondazione esistente devono essere sigillate con malta on strutturale tipo Masterflow Tixotropica 9607IX o equivalente

* Filling with structural mortar like BASF Masterflow 928 or equivalent / Riempimento con malta strutturale tipo BASF Masterflow 928 o equivalente

** For Precast Column detail please refer to / Per dettagli su Colonne Prefabbricate vedere Tavv.: SF101 - SF102 M- SF103

Steel Column / Pilastri in acciaio

01	SCM.HE300A
02	SCM.SH5300x300x12.5

Framing Legend/Legenda travi

Type / Tipo	Dim. bxh (cm)	Length / Lungh. (cm)
GBM.01	100xh60cm	1957
GBM.02	70xh30cm	<varies>
GBM.03	70xh30cm	<varies>
GBM.04	70xh30cm	841
GBM.05	100xh60cm	581
GBM.06	100xh60cm	753
GBM.07	100xh60cm	537
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GBM.11	100xh60cm	499
GBM.12	100xh60cm	992
GBM.13	100xh60cm	1980
GBM.14	100xh60cm	815
GBM.15	100xh60cm	350
GBM.16	100xh60cm	320

Raft Legend / Legenda Platee

Type / Tipo	Thickn. / Spess. (cm)
RFC.20	20
RFC.25	25
RFC.30	30
RFC.40	40
RFC.50	60
RFC.80	80

Floor Legend / Legenda Solai

Type / Tipo	Thick. / Spess. (cm)
SLP.30	30

Ga Plans Legend / Legenda Carpenteria

- Cast in place concrete section element / Sezione elementi gettati in opera
- Cast in place concrete element view / Elementi gettati in opera in vista
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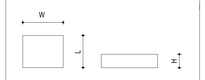
- Precast concrete element view / Elementi prefabbricati in vista
- Lean concrete section element / Sezione elementi magrone
- Structural mortar like BASF Masterflow 928 or equivalent / Rempimento con malta tipo BASF Masterflow 928 o equivalente
- + X.XX F.F.L. : Finish Floor Level in meter / Quota Fav. Finito in metri
- S.S.L : Structural Surface Level in meter / Quota Rustico Strutturale in metri

Pile Legend / Legenda pali

Pile Type/Pali Tipo	Type / Tipo	Diameter/Diam. (cm)	Depth/Lungh. (cm)
PIC.1	PIC.d60-L12	60	1200
PIC.2	PIC.d60-L7	60	700
PIC.3	PIC.d60-L7	60	700
PIC.4	PIC.d60-L12	60	1200
PIC.5	PIC.d60-L12	60	1200
PIC.6	PIC.d80-L12	80	1200

Pad Foundation Legend / Legenda Plinti

Type / Tipo	L (cm)	W (cm)	H (cm)
PAC.1	100	80	80
PAC.2	100	80	160
PAC.3	100	185	120
PAC.4	300	300	100
PAC.5	300	300	160
PAC.6	480	300	100
PAC.7	400	400	120
PAC.8	400	640	120
PAC.9	800	800	100



General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Verify all measurements on site.
3. Where approximate element dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
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7. Final setting coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Dimensioni tipiche degli elementi e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta consecendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche a pacchetti di copertura.
8. Il Committente deve coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

150 0 150 300 450 600
SCALE 1:150

Key Plan

NOTE

(A) For insulation and waterproofing details refer to architectural drawings / Per i dettagli di isolamento e impermeabilizzazione fare riferimento ai disegni architettonici AE551 - AE553

Rev	Details	By / Chkd / App	Date
P03	Issued for Construction	FCT/FBH/MEG	22/02/2023
P02	Issued for Construction	FCT/FBH/MEG	03/02/2023
P01	Issued for Compass Review	SB/FBH/MEG	16/12/2022

Client

COMPASS ARMENIA

Architectural / Civil / Structural

MAESTRALE

Lead Consultant / MEP Designer

Black & White Engineering
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PO Box 27150
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www.bw-engineering.com

Project Title
MXP I-I

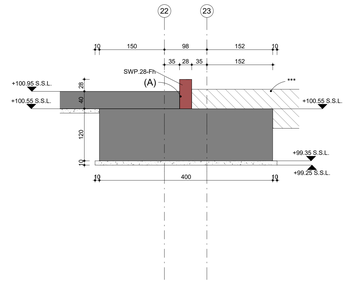
Drawing Title
Foundations
Foundations Plan
Quarter IV

Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	S5
Project Number	Scale @ A0 / Revision
P10424	1:150 / 1:50 / P03

Drawing Number
SB104

A0 - Do not scale



Sect. / Sez. - SEZ9 -

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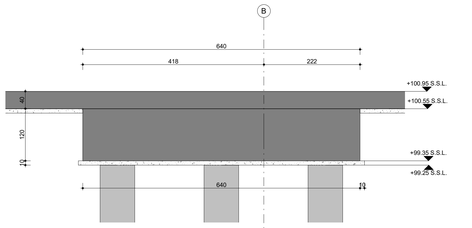
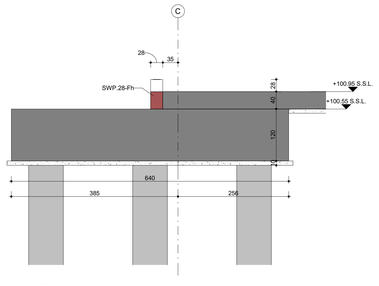


Sect. / Sez. - SZ10 -

1 : 50



Sect. / Sez. - SZ11 -

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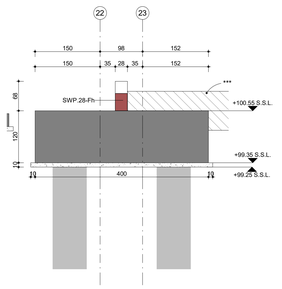

Sect. / Sez. - SZ12 -

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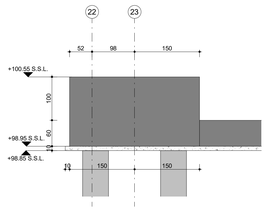

Sect. / Sez. - SZ13 -

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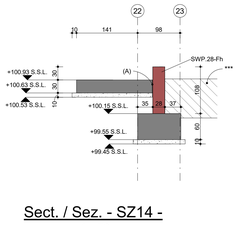
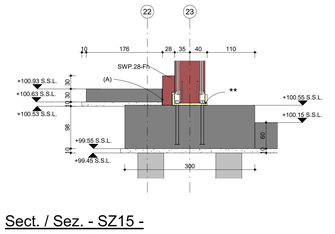


Sect. / Sez. - SZ14 -

1 : 50



Sect. / Sez. - SZ15 -

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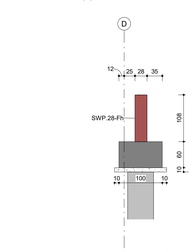

Sect. / Sez. - SZ16 -

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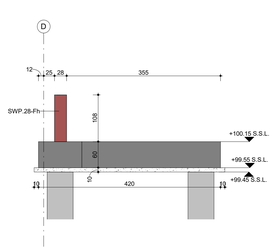

Sect. / Sez. - SZ17 -

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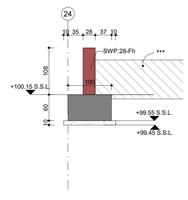

Sect. / Sez. - SZ32 -

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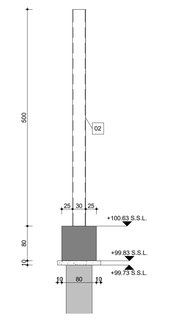

Sect. / Sez. - SZ21 -

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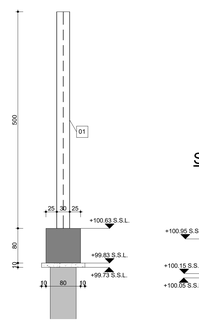
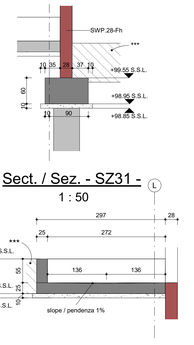


Sect. / Sez. - SZ22 -

1 : 50

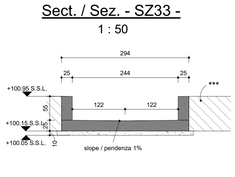


Sect. / Sez. - SZ31 -

1 : 50

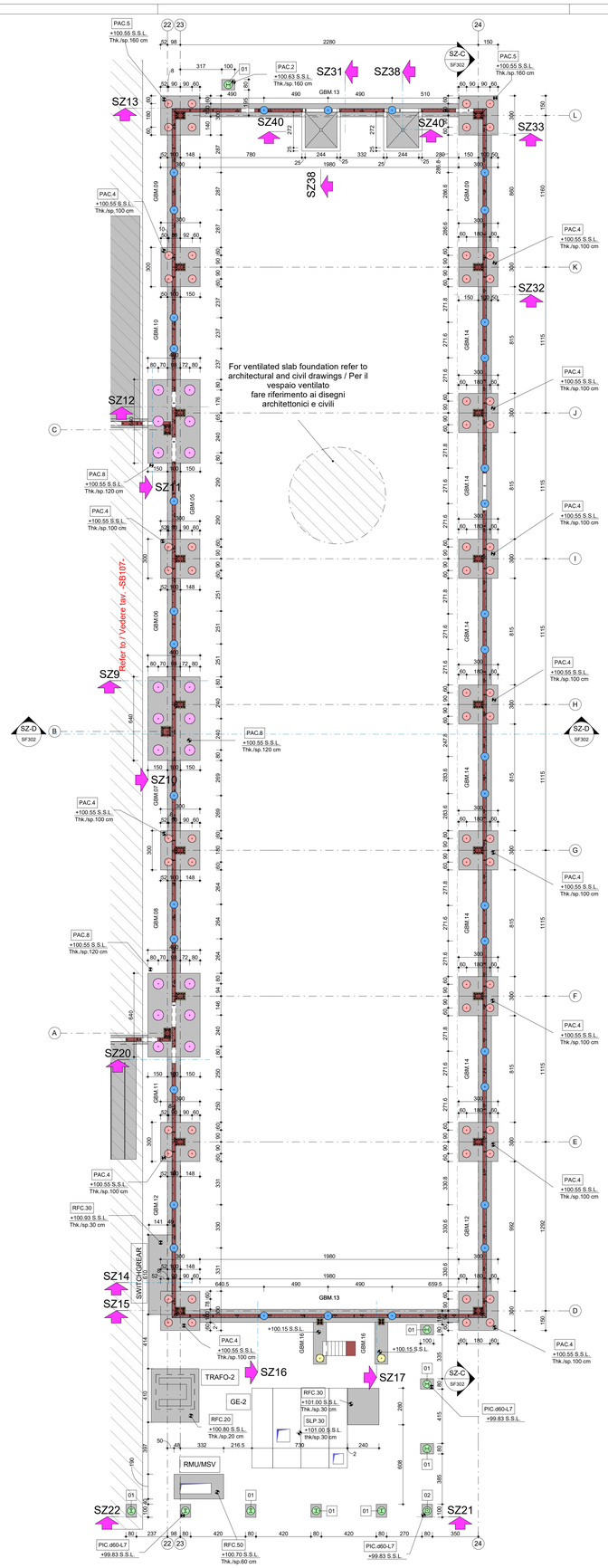
Sect. / Sez. - SZ38 -

1 : 50



Sect. / Sez. - SZ40 -

1 : 50



Foundations plan / Pianta di fondazione - Top view / Vista dall'alto -

1 : 150

Note:

Gaps with existing foundation must be sealed with non structural mortar like Masterflow Tixotropica 960TIX or equivalent / Le fessure con la fondazione esistente devonno essere sigillate con malta on strutturale tipo Masterflow Tixotropica 960TIX o equivalente

* Filling with structural mortar like BASF Masterflow 928 or equivalent / Riempimento con malta strutturale tipo BASF Masterflow 928 o equivalente

** For Precast Column detail please refer to / Per dettagli su Colonne Prefabbricate vedere Tavv.: SF101 - SF102 M- SF103

*** For ventilated slab foundation refer to architectural and civil drawings / Per il vespaio areato fare riferimento ai disegni architettonici e civili

Steel Column / Pilastri in acciaio

01	SCM.HE300A
02	SCM.SHS300x300x12.5
04	SCM.SHS300x300x12.5

Framing Legend/Legenda travi

Type / Tipo	Dim. b/h (cm)	Length / Lungh. (cm)
GBM.01	100xh60cm	1957
GBM.02	70xh30cm	<varies>
GBM.03	70xh30cm	<varies>
GBM.04	70xh30cm	841
GBM.05	100xh60cm	581
GBM.06	100xh60cm	753
GBM.07	100xh60cm	537
GBM.08	100xh60cm	791
GBM.09	100xh60cm	860
GBM.10	100xh60cm	710
GBM.11	100xh60cm	499
GBM.12	100xh60cm	992
GBM.13	100xh60cm	1980
GBM.14	100xh60cm	815
GBM.15	100xh60cm	350
GBM.16	100xh60cm	320

Raft Legend / Legenda Platee

Type / Tipo	Thickn. / Spess. (cm)
RFC.20	20
RFC.30	<varies>
RFC.40	40
RFC.50	60
RFC.80	80

Floor Legend / Legenda Solai

Type / Tipo	Thick. / Spess. (cm)
SLP.30	30

Ga Plans Legend / Legenda Carpenteria

- Cast in place concrete section element / Sezione elementi gettati in opera
- Cast in place concrete element view / Elementi gettati in opera in vista
- Precast concrete section element / Sezione elementi prefabbricati
- Precast concrete element view / Elementi prefabbricati in vista
- Lean concrete section element / Sezione elementi magrone
- Structural mortar like BASF Masterflow 928 or equivalent / Riempimento con malta tipo BASF Masterflow 928 o equivalente
- F.F.L : Finish Floor Level in meter / Quota Pav. Finito in metri
- S.S.L : Structural Surface Level in meter / Quota Rustico Strutturale in metri

Pile Legend / Legenda pali

Pile Type/Pali Tipo	Type / Tipo	Diameter/Diam. (cm)	Depth/Lungh. (cm)
PIC.1	PIC.d60-L12	60	1200
PIC.2	PIC.d60-L7	60	700
PIC.3	PIC.d60-L7	60	700
PIC.4	PIC.d60-L12	60	1200
PIC.5	PIC.d60-L12	60	1200
PIC.6	PIC.d60-L12	80	1200

Pad Foundation Legend / Legenda Plinti

Type / Tipo	L (cm)	W (cm)	H (cm)
PAC.1	100	80	80
PAC.2	100	80	160
PAC.3	100	185	120
PAC.4	300	300	100
PAC.5	300	300	160
PAC.6	480	300	100
PAC.7	400	400	120
PAC.8	400	640	120
PAC.9	800	800	100

Plan / Pianta Elevation / Prospetto

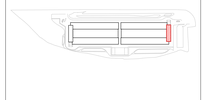
General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Verify all measurements on site.
3. All levels stated, unless dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final setting coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Tutti i livelli indicati, se non diversamente sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta consecendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsibilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche a pacchetti di copertura.
8. Questo disegno non è coordinato / passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

Key Plan



NOTE

(A) For insulation and waterproofing details refer to architectural drawings / Per i dettagli di isolamento e impermeabilizzazione fare riferimento ai disegni architettonici AE551 - AE553

Rev	Details	By / Chkd / App	Date
P02	Issued for Construction	FCT/FBH/MEG	03/02/2023
P01	Issued for Compass Review	SM/FBH/MEG	16/12/2022

Client

COMPASS DEVELOPER

Architectural / Civil / Structural

STANDING ARIATTA

MAESTRALE

Residence Hospitality Engineering

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27783
Tel.:+971 4 360 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Foundations
Foundations Plan
Quarter V

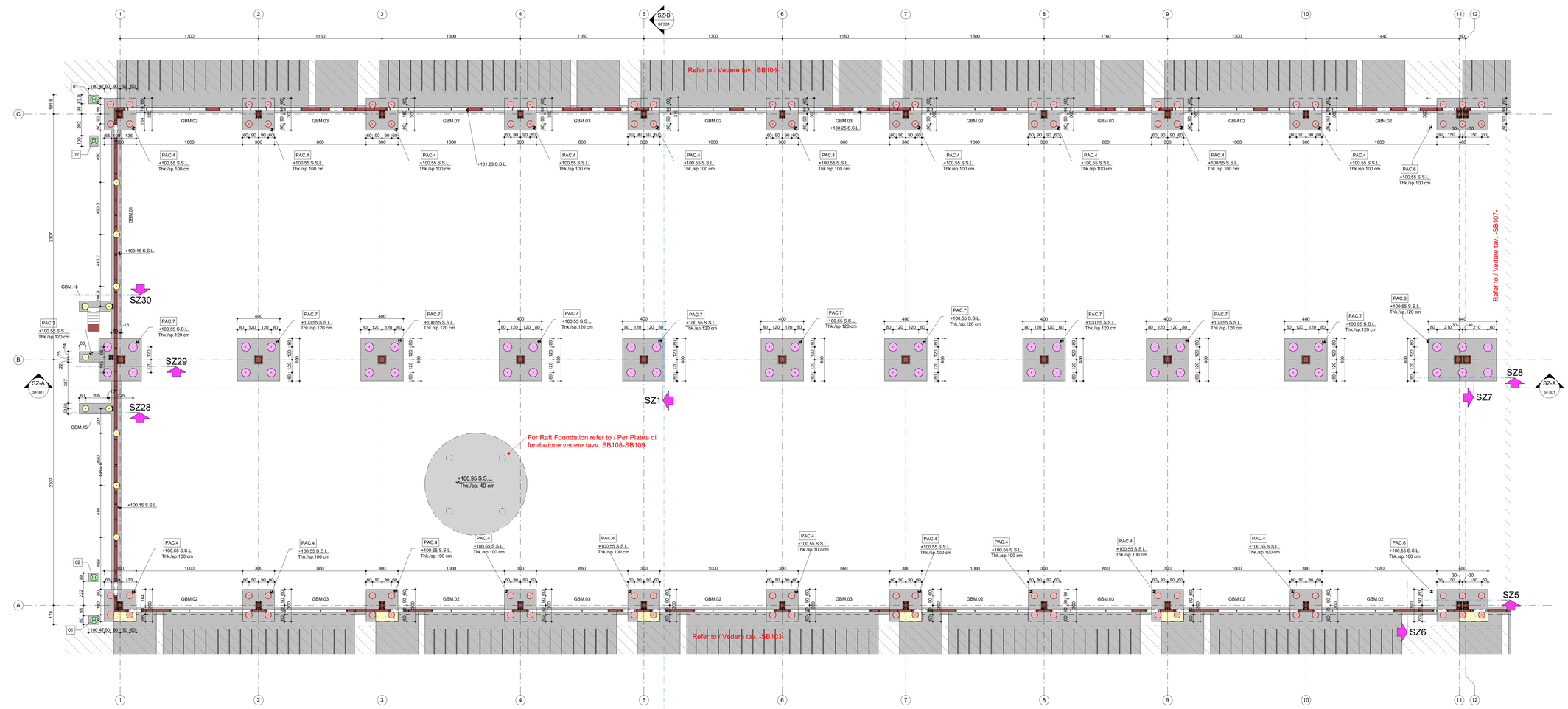
Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**

Project Number	Scale @ A0	Revision
P10424	**1:150 / 1:50**	**P02**

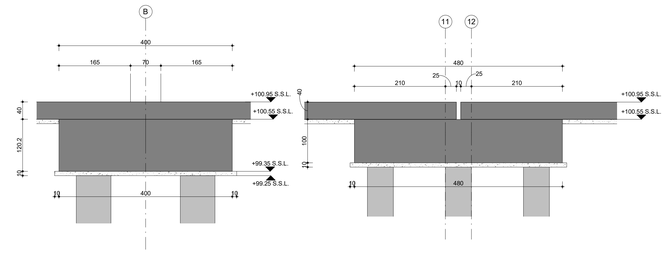
Drawing Number
SB105

A0 - Do not scale



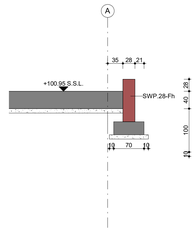
Foundations plan / Pianta di fondazione - Top view / Vista dall'alto -

1 : 150



Sect. / Sez. - SZ1 -
1 : 50

Sect. / Sez. - SZ5 -
1 : 50



Sect. / Sez. - SZ6 -
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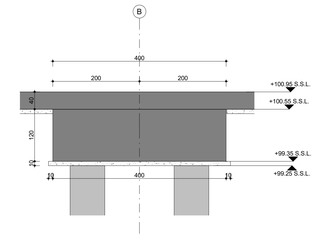

Sect. / Sez. - SZ7 -
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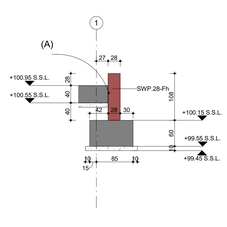
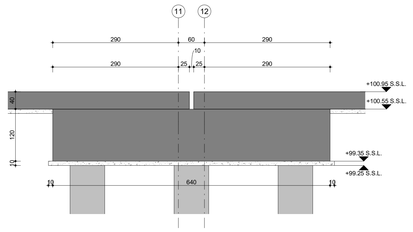


Sect. / Sez. - SZ30 -
1 : 50



Sect. / Sez. - SZ8 -
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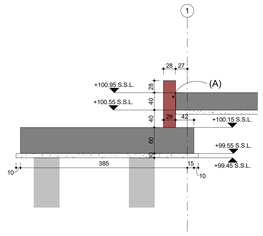

Sect. / Sez. - SZ28 -
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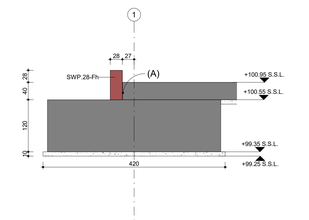


Sect. / Sez. - SZ29 -
1 : 50

Note:

Gaps with existing foundation must be sealed with non structural mortar like Masterflow Tixotropica 960TIX or equivalent / Le fessure con la fondazione esistente devono essere sigillate con malta on strutturale tipo Masterflow Tixotropica 960TIX o equivalente

* Filling with structural mortar like BASF Masterflow 928 or equivalent / Riempimento con malta strutturale tipo BASF Masterflow 928 o equivalente

** For Precast Column detail please refer to / Per dettagli su Colonne Prefabbricate vedere Tavv.: SF101 - SF102 Mr. SF103

Steel Column / Pilastri in acciaio

01	SCM.HE300A
02	SCM.SHS300x300x12.5
04	SCM.SHS300x300x12.5

Framing Legend/Legenda travi

Type / Tipo	Dim. b/h (cm)	Length / Lungh. (cm)
GBM.01	100xh60cm	1957
GBM.02	70xh30cm	<varies>
GBM.03	70xh30cm	<varies>
GBM.04	70xh30cm	841
GBM.05	100xh60cm	581
GBM.06	100xh60cm	753
GBM.07	100xh60cm	537
GBM.08	100xh60cm	791
GBM.09	100xh60cm	860
GBM.10	100xh60cm	710
GBM.11	100xh60cm	499
GBM.12	100xh60cm	992
GBM.13	100xh60cm	1980
GBM.14	100xh60cm	815
GBM.15	100xh60cm	350
GBM.16	100xh60cm	320

Raft Legend / Legenda Platee

Type / Tipo	Thickn. / Spess. (cm)
RFC.20	20
RFC.30	<varies>
RFC.40	40
RFC.50	60
RFC.80	80

Floor Legend / Legenda Solai

Type / Tipo	Thick. / Spess. (cm)
SLP.30	30

Ga Plans Legend / Legenda Carpenteria

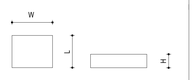
- Cast in place concrete section element / Sezione elementi gettati in opera
- Cast in place concrete element view / Elementi gettati in opera in vista
- Precast concrete section element / Sezione elementi prefabbricati
- Precast concrete element view / Elementi prefabbricati in vista
- Lean concrete section element / Sezione elementi magrone
- Structural mortar like BASF Masterflow 928 or equivalent / Riempimento con malta tipo BASF Masterflow 928 o equivalente
- * XXX — F.F.L. : Finish Floor Level in meter / Quota Pav. Finito in metri
- S.S.L. : Structural Surface Level in meter / Quota Rustico Strutturale in metri

Pile Legend / Legenda pali

Pile Type/Pali Tipo	Type / Tipo	Diameter/Diam. (cm)	Depth/Lungh. (cm)
PIC.1	PIC.d60-L12	60	1200
PIC.2	PIC.d60-L7	60	700
PIC.3	PIC.d60-L7	60	700
PIC.4	PIC.d60-L12	60	1200
PIC.5	PIC.d60-L12	60	1200
PIC.6	PIC.d80-L12	80	1200

Pad Foundation Legend / Legenda Plinti

Type / Tipo	L (cm)	W (cm)	H (cm)
PAC.1	100	80	80
PAC.2	100	80	160
PAC.3	100	185	120
PAC.4	300	300	100
PAC.5	300	300	160
PAC.6	480	300	100
PAC.7	400	400	120
PAC.8	400	640	120
PAC.9	800	800	100



General Notes

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3. All reinforcement and element dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
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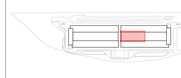
7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni di armature e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta consciendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche a pacchetti di copertura.
8. Le dimensioni e le coordinate / passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

SCALE 1:150

Key Plan



NOTE

(A) For insulation and waterproofing details refer to architectural drawings / Per i dettagli di isolamento e impermeabilizzazione fare riferimento ai disegni architettonici AE551 - AE553

Rev	Details	By / Chkd / App	Date
P02	Issued for Construction	FCT/FBH/MEG	03/02/2023
P01	Issued for Compass Review	SM/FBH/MEG	16/12/2022

Client

COMPASS ARMENTI

Architectural / Civil / Structural

MAESTRALE

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
PO Box 27753
Tel: +971 4 366 2226
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Foundations
Foundations Plan
Sector DH-3&DH-4

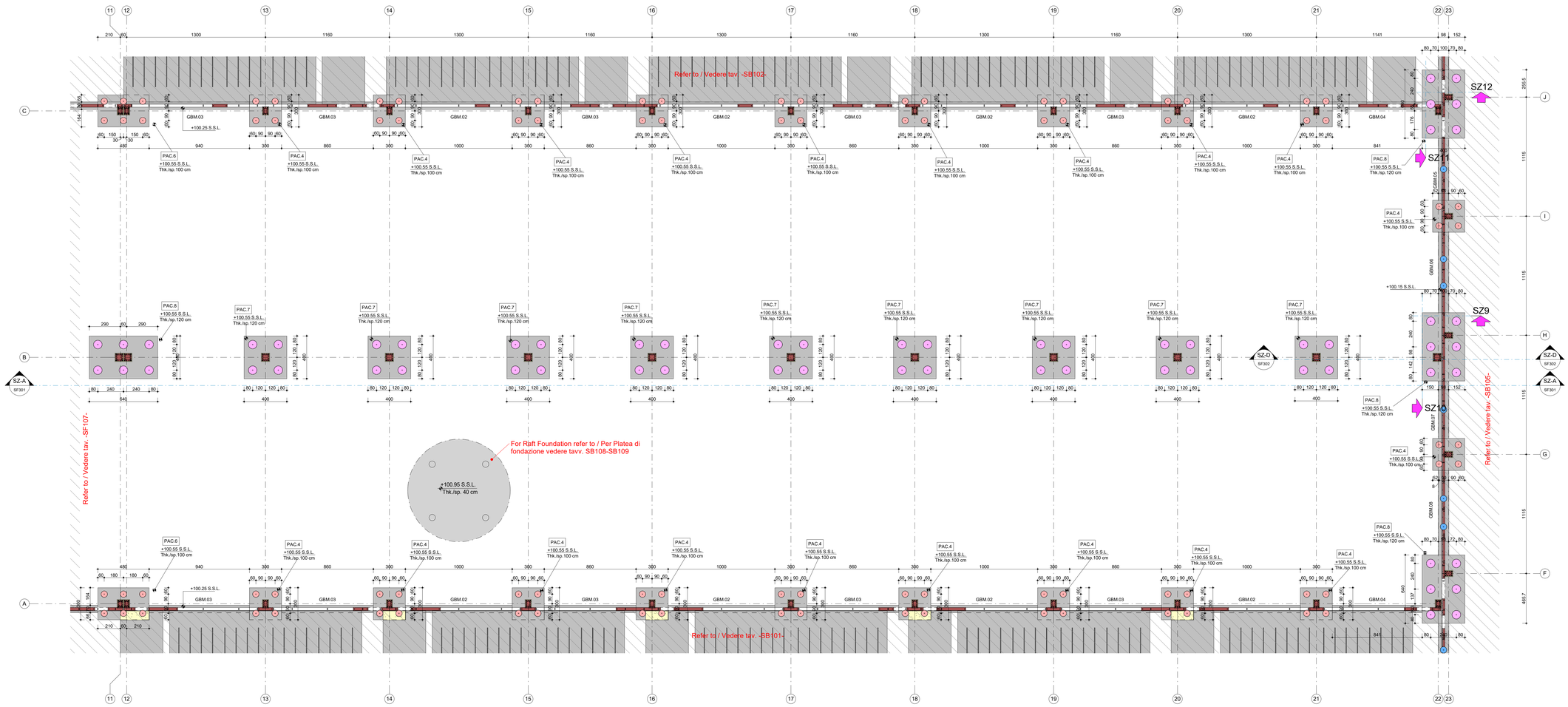
Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**

Project Number	Scale @ A0	Revision
P10424	**1:150 / 1:50**	**P02**

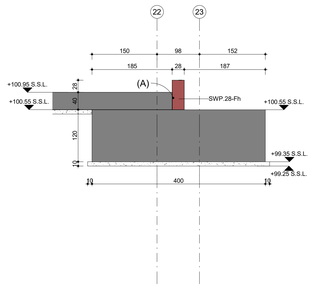
Drawing Number
SB106

A0 - Do not scale



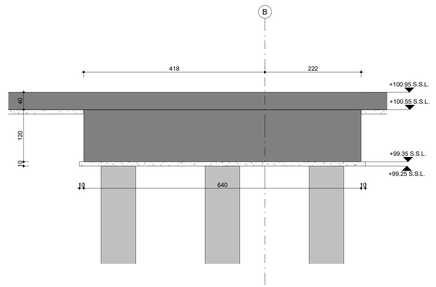
Foundations plan / Pianta di fondazione - Top view / Vista dall'alto -

1 : 150



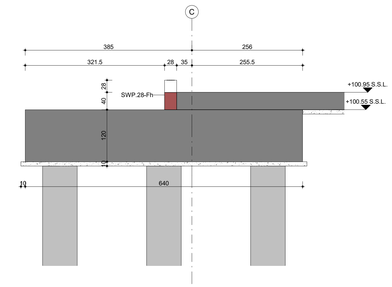
Sect. / Sez. - SZ9 -

1 : 50



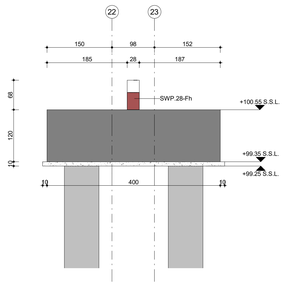
Sect. / Sez. - SZ10 -

1 : 50



Sect. / Sez. - SZ11 -

1 : 50



Sect. / Sez. - SZ12 -

1 : 50

Note:

Gaps with existing foundation must be sealed with non structural mortar like Masterflow Tixotropica 960TIX or equivalent / Le fessure con la fondazione esistente devono essere sigillate con malta on strutturale tipo Masterflow Tixotropica 960TIX o equivalente

* Filling with structural mortar like BASF Masterflow 928 or equivalent / Riempimento con malta strutturale tipo BASF Masterflow 928 o equivalente

** For Precast Column detail please refer to / Per dettagli su Colonne Prefabbricate vedere Tavv.: SF101 - SF102 Mr. SF103

Steel Column / Pilastri in acciaio

01	SCM.HE300A
02	SCM.SHS300x300x12.5
04	SCM.SHS300x300x12.5

Framing Legend/Legenda travi

Type / Tipo	Dim. bxh (cm)	Length / Lungh. (cm)
GBM.01	100xh60cm	1957
GBM.02	70xh30cm	<varies>
GBM.03	70xh30cm	<varies>
GBM.04	70xh30cm	841
GBM.05	100xh60cm	581
GBM.06	100xh60cm	753
GBM.07	100xh60cm	537
GBM.08	100xh60cm	791
GBM.09	100xh60cm	860
GBM.10	100xh60cm	710
GBM.11	100xh60cm	499
GBM.12	100xh60cm	992
GBM.13	100xh60cm	1980
GBM.14	100xh60cm	815
GBM.15	100xh60cm	350
GBM.16	100xh60cm	320

Raft Legend / Legenda Platee

Type / Tipo	Thickn. / Spess. (cm)
RFC.20	20
RFC.30	<varies>
RFC.40	40
RFC.50	60
RFC.80	80

Floor Legend / Legenda Solai

Type / Tipo	Thick. / Spess. (cm)
SLP.30	30

Ga Plans Legend / Legenda Carpenteria

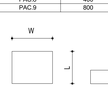
- Cast in place concrete section element / Sezione elementi gettati in opera
- Cast in place concrete element view / Elementi gettati in opera in vista
- Precast concrete section element / Sezione elementi prefabbricati
- Precast concrete element view / Elementi prefabbricati in vista
- Lean concrete section element / Sezione elementi magrone
- Structural mortar like BASF Masterflow 928 or equivalent / Riempimento con malta tipo BASF Masterflow 928 o equivalente
- * x.xx F.F.L.: Finish Floor Level in meter / Quota Pav. Finito in metri
- S.S.L.: Structural Surface Level in meter / Quota Rustico Strutturale in metri

Pile Legend / Legenda pali

Pile Type/Pali Tipo	Type / Tipo	Diameter/Diam. (cm)	Depth/Lungh. (cm)
PIC.1	PIC.d60-L12	60	1200
PIC.2	PIC.d80-L7	60	700
PIC.3	PIC.d60-L7	60	700
PIC.4	PIC.d60-L12	60	1200
PIC.5	PIC.d60-L12	60	1200
PIC.6	PIC.d80-L12	80	1200

Pad Foundation Legend / Legenda Plinti

Type / Tipo	L (cm)	W (cm)	H (cm)
PAC.1	100	80	80
PAC.2	100	80	160
PAC.3	100	185	120
PAC.4	300	300	100
PAC.5	300	300	160
PAC.6	480	300	100
PAC.7	400	400	120
PAC.8	400	640	120
PAC.9	800	800	100



Plan / Pianta — Elevation / Prospetto

General Notes

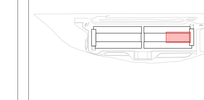
1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Verify all measurements on site.
3. All dimensions and element dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Tutte le dimensioni degli elementi e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta consciendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'Ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche a pacchetti di copertura.
8. Le dimensioni e posizione coordinate / passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

SCALE 1:150

Key Plan



NOTE

(A) For insulation and waterproofing details refer to architectural drawings / Per i dettagli di isolamento e impermeabilizzazione fare riferimento ai disegni architettonici AE551 - AE553

Rev	Details	By / Chkd / App	Date
P02	Issued for Construction	FCT/FBH/MEG	03/02/2023
P01	Issued for Compass Review	SB/FBH/MEG	16/12/2022

Client

COMPASS Geoservices

Architectural / Civil / Structural

MAESTRALE

STRACENG

ARIATTA Engineering

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1001
Marina Plaza
Dubai marina
PO Box 23783
Tel: +971 4 360 2228
www.bw-engineering.com

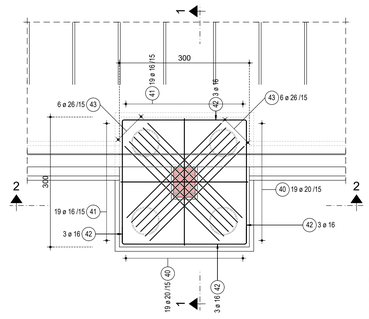
Project Title
MXP I-I

Drawing Title
Foundations
Foundations Plan
Sector DH-1&DH-2

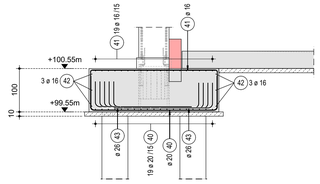
Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	S5
Project Number	Scale @ A0 / Revision
P10424	1:150 / 1:50 / P02

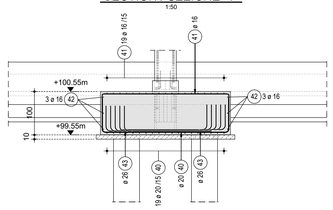
Drawing Number
SB107



FOUNDATION PLAN / *PLANIMETRIA FONDAZIONE*
1:50



SECTION / *SEZIONE -1-*
1:50



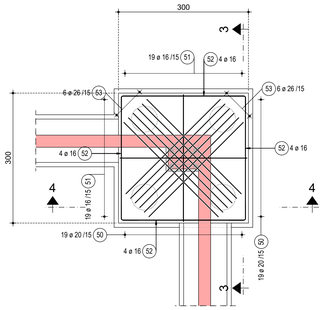
SECTION / *SEZIONE -2-*
1:50

BAR SCHEDULE - BENDING SHAPE
DISTINTA ARMATURE

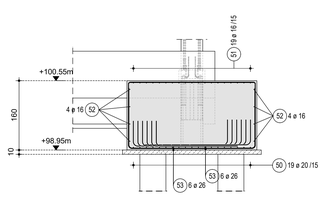
Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
40	38	20	4.54	294 / 80	172.52	426.12
41	38	16	4.14	294 / 60	157.32	248.57
42	12	16	3.68	288 / 40	44.16	69.77
43	12	26	4.30	310 / 60	51.60	215.07

Total Mass / *Peso totale* [kg] : 959.53

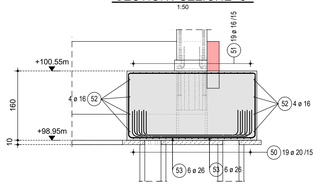
TYPE / *TIPO -PAC.4-*



FOUNDATION PLAN / *PLANIMETRIA FONDAZIONE*
1:50



SECTION / *SEZIONE -3-*
1:50



SECTION / *SEZIONE -4-*
1:50

BAR SCHEDULE - BENDING SHAPE
DISTINTA ARMATURE

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
50	38	20	5.74	294 / 140	218.12	538.76
51	38	16	4.14	294 / 60	157.32	248.57
52	16	16	3.68	288 / 40	58.88	93.03
53	12	26	4.30	310 / 60	51.60	215.07

Total Mass / *Peso totale* [kg] : 1095.43

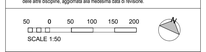
TYPE / *TIPO -PAC.5-*

General Notes

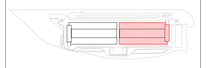
1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key fo symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final installation coordination shop drawings.
7. Final setting coordinated with the Contractor design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

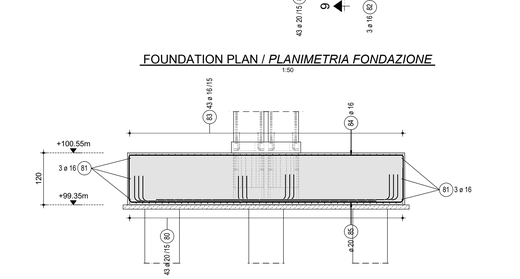
Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Verificare tutte le misure in cantiere.
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del contraente fornire indicazioni di montaggio accurate.
7. La quota degli elementi fini dipendono da eventuali modifiche a pacchetto di copertura.
8. Il contraente deve coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.



Key Plan





FOUNDATION PLAN / *PLANIMETRIA FONDAZIONE*
1:50

SECTION / *SEZIONE -5-*
1:50

BAR SCHEDULE - BENDING SHAPE
DISTINTA ARMATURE

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
60	32	16	4.14	294 / 60	132.48	209.32
61	6	16	3.68	288 / 40	22.08	34.89
62	32	20	4.54	294 / 80	145.28	358.84
63	6	16	5.48	468 / 40	32.88	51.95
64	19	16	5.94	474 / 60	112.86	178.32
65	19	20	6.34	474 / 80	120.46	297.54
66	20	26	4.65	345 / 80	93.00	387.62

Total Mass / *Peso totale* [kg] : 1518.48

SECTION / *SEZIONE -6-*
1:50

TYPE / *TIPO -PAC.6-*

FOUNDATION PLAN / *PLANIMETRIA FONDAZIONE*
1:50

SECTION / *SEZIONE -7-*
1:50

SECTION / *SEZIONE -8-*
1:50

BAR SCHEDULE - BENDING SHAPE
DISTINTA ARMATURE

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
70	22	20	5.54	394 / 80	121.88	301.04
71	12	16	4.68	388 / 40	56.16	88.73
72	22	20	5.54	394 / 80	121.88	301.04
73	44	16	4.74	394 / 40	208.56	329.52
74	14	26	5.70	450 / 80	79.80	332.61

Total Mass / *Peso totale* [kg] : 1352.94

TYPE / *TIPO -PAC.7-*

FOUNDATION PLAN / *PLANIMETRIA FONDAZIONE*
1:50

SECTION / *SEZIONE -9-*
1:50

BAR SCHEDULE - BENDING SHAPE
DISTINTA ARMATURE

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
80	43	20	5.54	394 / 80	238.22	588.40
81	6	16	4.68	388 / 40	28.08	44.37
82	6	16	7.08	628 / 40	42.48	67.12
83	43	16	5.14	394 / 60	221.02	349.21
84	22	16	7.54	634 / 60	165.88	262.09
85	22	20	7.94	634 / 80	174.68	431.46
86	28	26	5.53	433 / 60	154.84	645.37

Total Mass / *Peso totale* [kg] : 2388.02

SECTION / *SEZIONE -10-*
1:50

TYPE / *TIPO -PAC.8-*

TYPE / *TIPO A*

TYPE / *TIPO B*

RAFT FOUNDATION CONNECTION / *COLLEGAMENTO PAVIMENTAZIONE*
1:50

CONNECTIONS TO PRECAST ELEMENTS
COLLEGAMENTI AI PREFABBRICATI

PLACE THE CONNECTION ANCHORS WITH THE PRECAST ELEMENTS AS INDICATED ON THE PRECAST DRAWINGS

POSIZIONARE I COLLEGAMENTI CON GLI ELEMENTI PREFABBRICATI COME INDICATO NEI DISEGNI DEL PREFABBRICATORE

DETAIL / *DETTAGLIO A*
Ø 16 / 150 x 150

VALID FOR / *VALIDO PER*
TYPE / *TIPO -PAC.4-*
TYPE / *TIPO -PAC.6-*

DETAIL / *DETTAGLIO B*
Ø 16 / 150 x 150

VALID FOR / *VALIDO PER*
TYPE / *TIPO -PAC.7-*
TYPE / *TIPO -PAC.8-*

DETAIL / *DETTAGLIO C*
Ø 16 / 150 x 150

VALID FOR / *VALIDO PER*
TYPE / *TIPO -PAC.5-*

REBAR SUPPORT CHAIRS / *CAVALLOTTI DI SOSTEGNO*
AXONOMETRIC VIEW / *VISTA ASSONOMETRICA*
1:25

MATERIALS / *MATERIALI*

CONCRETE CLASS *CLASSE CALCESTRUZZO*		**C30/37**	
AT UNSHORING *AL DISARMO*	*Rck* ≥	2,5	kN/cm²
AT 28 DAYS *A 28 GIORNI*	*Rck* ≥	3,7	kN/cm²
REBARS CLASS *TIPO ACCIAIO*		**B 450 C**	

NOTE (rif. UNI 11104:2016 / UNI EN 206-1)

EXPOSURE CLASS *CLASSE DI ESPOSIZIONE*	XC 2
MINIMUM CONCRETE COVER *COPRIFERRO MINIMO*	30 mm
CONCRETE SLUMP *CONSISTENZA CALCESTRUZZO*	S4
MAX AGGREGATE SIZE *DIMENSIONE MASSIMA INERTE*	25 mm

P02	Issued for Construction	DAP/FBH/MEG	03/02/2023
P01	Issued for Compass Review	DAP/FBH/MEG	16/12/2022
Rev.	Details	By / Chkd / App	Date

Client

COMPASS Datacenters

Architectural / Civil

STRADING ARIATTA ENGINEERING

MAESTRALE

Studio Rocchi Engineering

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1901
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 360 2228
www.bw-engineering.com

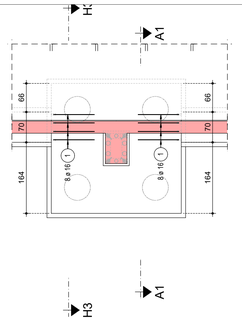
Project Title
MXP I-I

Drawing Title
Foundations
Foundations Reinforcement and Details
PAC.4 to PAC.9

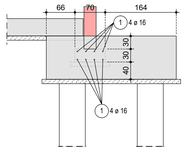
Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**
Project Number	**Scale @ A0** / **Revision**
P10424	**1:50** / **P02**

Drawing Number
SB501



FOUNDATION PLAN / *PLANIMETRIA FONDAZIONE*
1:50

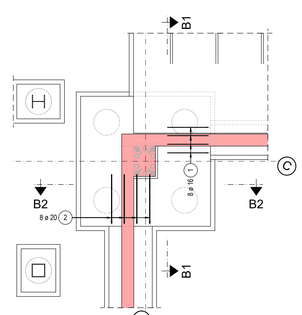


SECTION / *SEZIONE -A1-*
1:50

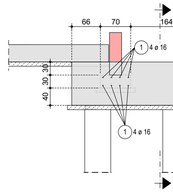
Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
1	16	16	0.95	coupler 16,0 — 95 (100)	15.20	24.02

Total Mass / *Peso totale* [kg] : 24.02

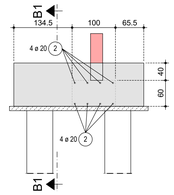
TYPE / *TIPO -A-*



FOUNDATION PLAN / *PLANIMETRIA FONDAZIONE*
1:50



SECTION / *SEZIONE -B1-*
1:50

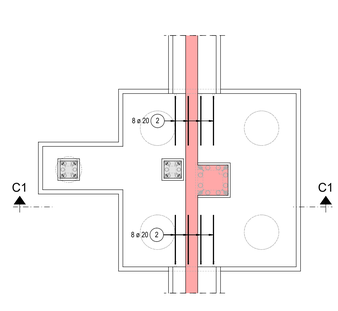


SECTION / *SEZIONE -B2-*
1:50

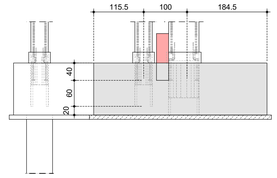
Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
1	8	16	0.95	coupler 16,0 — 95 (100)	7.60	12.01
2	8	20	1.14	coupler 20,0 — 114 (120)	9.12	22.53

Total Mass / *Peso totale* [kg] : 34.54

TYPE / *TIPO -B-*



FOUNDATION PLAN / *PLANIMETRIA FONDAZIONE*
1:50

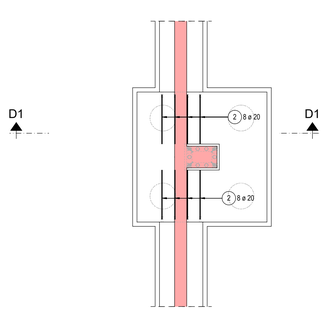


SECTION / *SEZIONE -C1-*
1:50

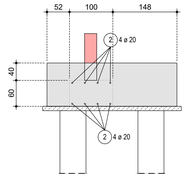
Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
2	16	20	1.14	coupler 20,0 — 114 (120)	18.24	45.05

Total Mass / *Peso totale* [kg] : 45.05

TYPE / *TIPO -C-*



FOUNDATION PLAN / *PLANIMETRIA FONDAZIONE*
1:50

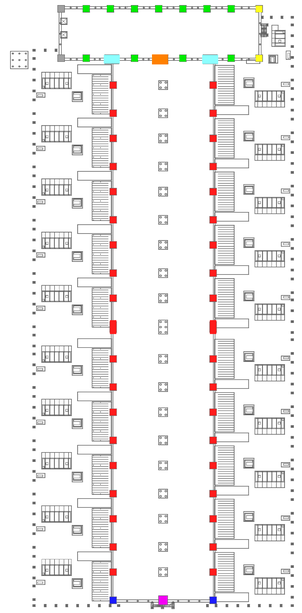


SECTION / *SEZIONE -D1-*
1:50

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
2	16	20	1.14	coupler 20,0 — 114 (120)	18.24	45.05

Total Mass / *Peso totale* [kg] : 45.05

TYPE / *TIPO -D-*



KEYPLAN / *PIANTA CHIAVE*
1:1000

TYPE -A- / *TIPO -A-*
TYPE -B- / *TIPO -B-*
TYPE -C- / *TIPO -C-*
TYPE -D- / *TIPO -D-*
TYPE -E- / *TIPO -E-*
TYPE -F- / *TIPO -F-*
TYPE -G- / *TIPO -G-*
TYPE -H- / *TIPO -H-*

MATERIALS / *MATERIALI*			
CONCRETE CLASS CLASSE CALCESTRUZZO	**C30/37**		
AT UNSHORING AL DISARMO	*Rck* ≥	2,5	kN/cm²
AT 28 DAYS A 28 GIORNI	*Rck* ≥	3,7	kN/cm²
REBARS CLASS TIPO ACCIAIO	**B 450 C**		

NOTE (rif. UNI 11104:2016 / UNI EN 206-1)	
EXPOSURE CLASS CLASSE DI ESPOSIZIONE	XC 2
MINIMUM CONCRETE COVER COPRIFERRO MINIMO	30 mm
CONCRETE SLUMP CONSISTENZA CALCESTRUZZO	S4
MAX AGGREGATE SIZE DIMENSIONE MASSIMA INERTE	25 mm

General Notes

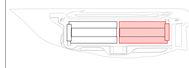
1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final installation/construction shop drawings.
7. Final ceiling coordinated with architectural interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

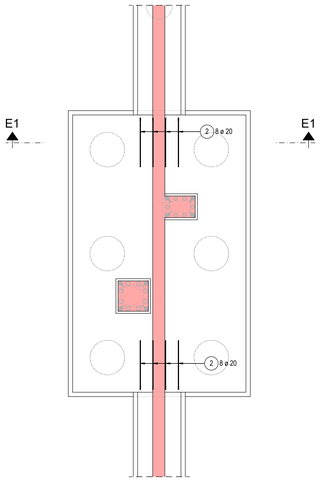
Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare tutte le misure in cantiere.
3. La dimensione di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del costruttore fornire indicazioni di montaggio accurate.
7. La quota degli elementi finiti dipendono da eventuali modifiche a pacchetti di copertura.
8. Il costruttore deve coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

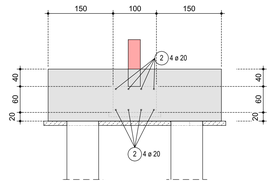
50 0 50 100 150 200
C1:22
SCALE 1:50

Key Plan





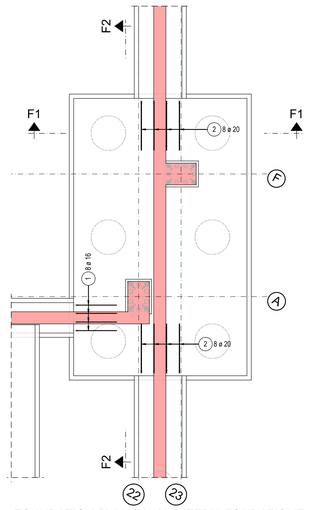
FOUNDATION PLAN / *PLANIMETRIA FONDAZIONE*
1:50



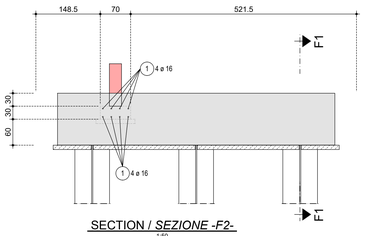
Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
2	16	20	1.14	coupler 20,0 — 114 (120)	18.24	45.05

Total Mass / *Peso totale* [kg] : 45.05

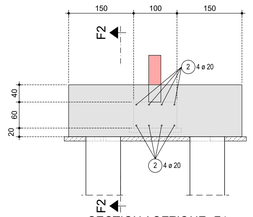
TYPE / *TIPO -E-*



FOUNDATION PLAN / *PLANIMETRIA FONDAZIONE*
1:50



SECTION / *SEZIONE -F2-*
1:50

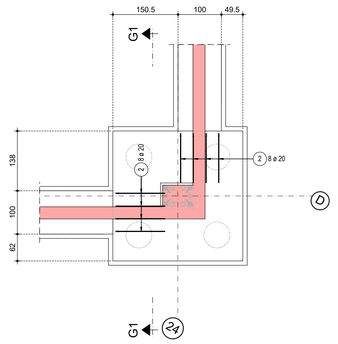


SECTION / *SEZIONE -F1-*
1:50

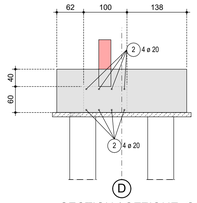
Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
1	8	16	0.95	coupler 16,0 — 95 (100)	7.60	12.01
2	16	20	1.14	coupler 20,0 — 114 (120)	18.24	45.05

Total Mass / *Peso totale* [kg] : 57.06

TYPE / *TIPO -F-*



FOUNDATION PLAN / *PLANIMETRIA FONDAZIONE*
1:50

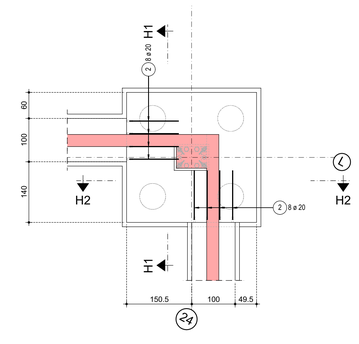


SECTION / *SEZIONE -G1-*
1:50

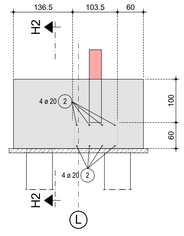
Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
2	16	20	1.14	coupler 20,0 — 114 (120)	18.24	45.05

Total Mass / *Peso totale* [kg] : 45.05

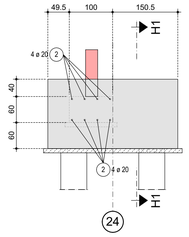
TYPE / *TIPO -G-*



FOUNDATION PLAN / *PLANIMETRIA FONDAZIONE*
1:50



SECTION / *SEZIONE -H1-*
1:50



SECTION / *SEZIONE -H2-*
1:50

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
2	16	20	1.14	coupler 20,0 — 114 (120)	18.24	45.05

Total Mass / *Peso totale* [kg] : 45.05

TYPE / *TIPO -H-*

P02	Issued for Construction	DAP/FBH/MEG 03/02/2023
P01	Issued for Compass Review	DAP/FBH/MEG 16/12/2022
Rev	Details	By / Chkd / App Date

Client

COMPASS DEVELOPMENTS

Architectural / Civil

STANDING ARIATTA MAESTRALE

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1901
Marina Plaza
Dubai marina
PO Box 27703
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Foundations
Foundations Reinforcement and Details
Couplers Reinf. for Beam Connections

Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**
Project Number	Scale @ A0 / Revision
P10424	**1:50** / **P02**

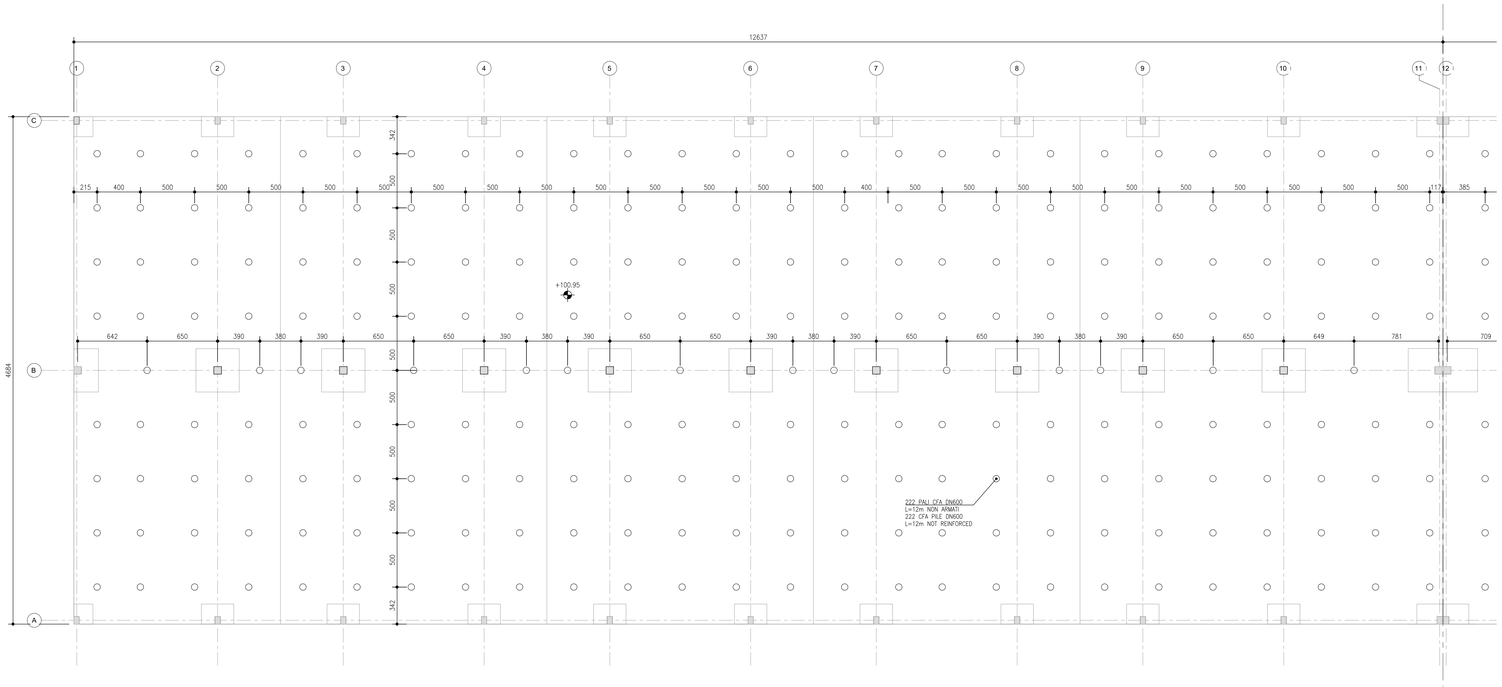
Drawing Number
SB502

A0 - Do not scale

PIANTA PLATEA - PARTE OVEST \ SLAB - WEST SECTOR

1:200

TRACIAMENTO PALI \ PILES LAYOUT


12637
1
2
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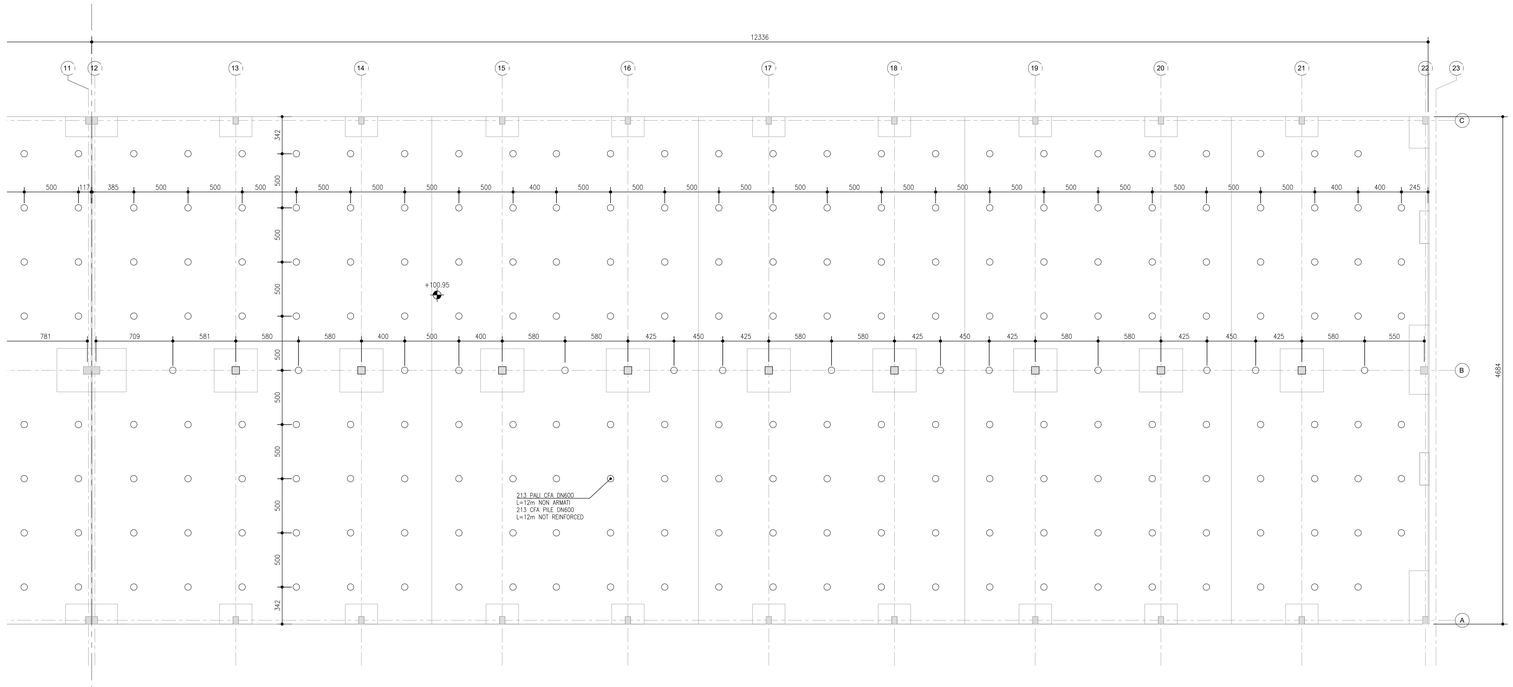
8
9
10
11
12
C
B
A
4684
215
400
500
500
500

A0 - Do not scale

PIANTA PLATEA - PARTE EST \ SLAB - EAST SECTOR

1:200

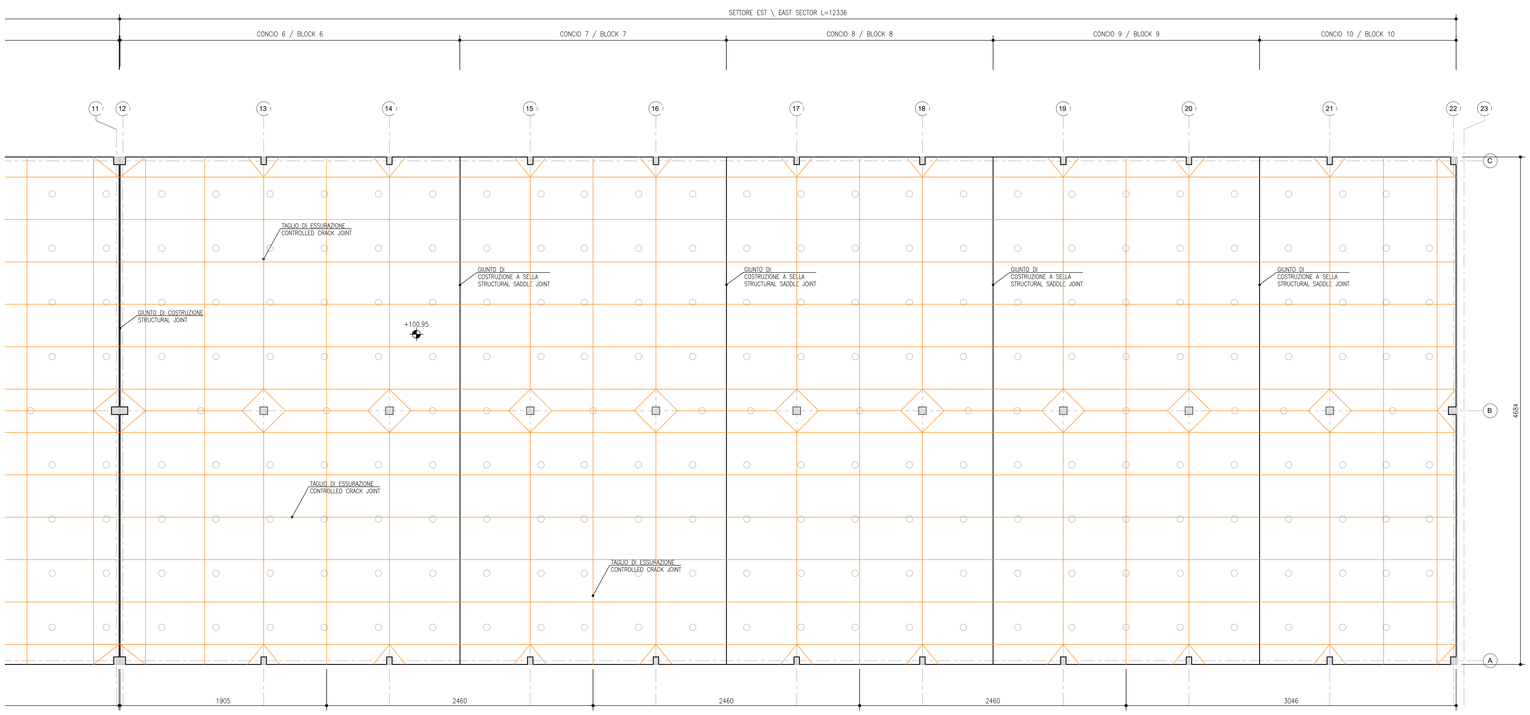
TRACIAMENTO PALI \ PILES LAYOUT



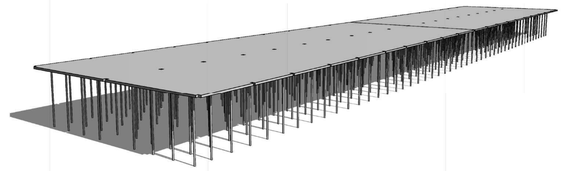
PIANTA PLATEA - PARTE EST \ SLAB - EAST SECTOR

1:200

CARPENTERIA - GIUNTI E TAGLI \ STRUCTURE - JOINTS AND CUTS

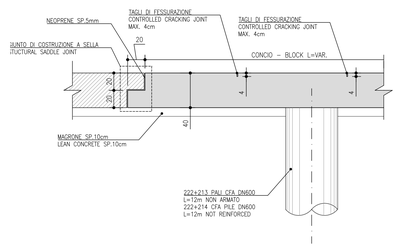


VISTA 3D \ 3D VIEW



SEZIONE TIPICA \ TYPICAL SECTION

SCALA 1:25



CALCESTRUZZO – CONCRETE

LEAN CONCRETE / MAGRONE
- RESISTENCE CLASS / CLASSE DI RESISTENZA : C12/15

SLAB / PLATEA
- RESISTENCE CLASS / CLASSE DI RESISTENZA : C30/37
- EXPOZSURE CLASS / CLASSE DI ESPOSIZIONE : XC2
- MINIMUM CONCRETE COVER / COPRIFERRO MIN. : c=40 mm
- SLUMP / CONSISTENZA : S4
- MAX AGGREGATE SIZE / MAX. AGGREGATO : 25 mm

PILES / PALI
- RESISTENCE CLASS / CLASSE DI RESISTENZA : C25/30
- EXPOZSURE CLASS / CLASSE DI ESPOSIZIONE : XC2
- MINIMUM CONCRETE COVER / COPRIFERRO MIN. : c=40 mm
- SLUMP / CONSISTENZA : S4
- MAX AGGREGATE SIZE / MAX. AGGREGATO : 25 mm

REBAR / ACCIAIO PER C.A.

- REBARS CLASS / TIPO DI ACCIAIO : B450C

General Notes

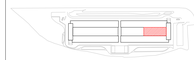
1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise noted. Validate all measurements on site.
3. All grand piano equipment dimensions are typical. The Contractor should show actual, approved client and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final installation coordination shop drawings.
7. Final ceiling coordinated with interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams \ structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni delle attrezzature meccaniari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Contraente fornire indicazioni di montaggio accurate.
7. La quote degli elementi finiti dipendono da eventuali modifiche ai pacchetti di copertura.
8. Il Contraente deve coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

300 0 300 600 900 1200
SCALE 1:300

Key Plan



P02	Issued for Construction	CRL/KF/BH/MEG	03/02/2023
P01	Issued for Compass Review	CRL/KF/BH/MEG	16/12/2022

Details

Client

COMPASS

Architectural / Civil / Structural

MAESTRALE

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1901
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Foundations
Raft Foundation
Piles layout and Formwork
Sector DH-1&DH-2

Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**

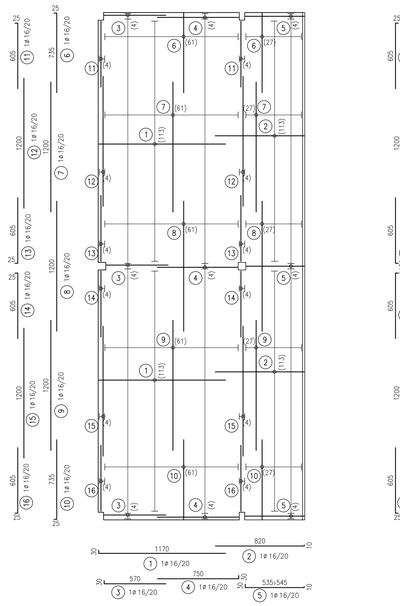
Project Number	Scale @ A0	Revision
P10424	**1:200 / 1:25**	**P02**

Drawing Number
SB109

A0 - Do not scale

ARMATURA CONCIO/REINFORCEMENT ASHLAR 1

ARMATURA INFERIORE/BOTTOM REINFORCEMENT
SCALA/SCALE 1:200



ARMATURA SUPERIORE/TOP REINFORCEMENT
SCALA/SCALE 1:200

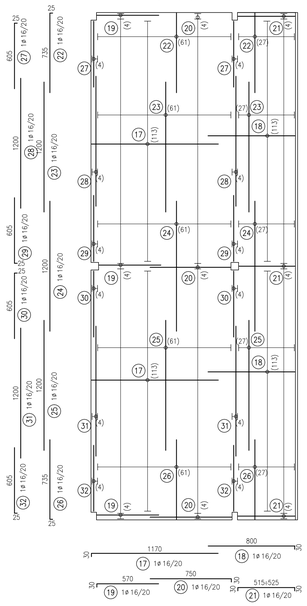
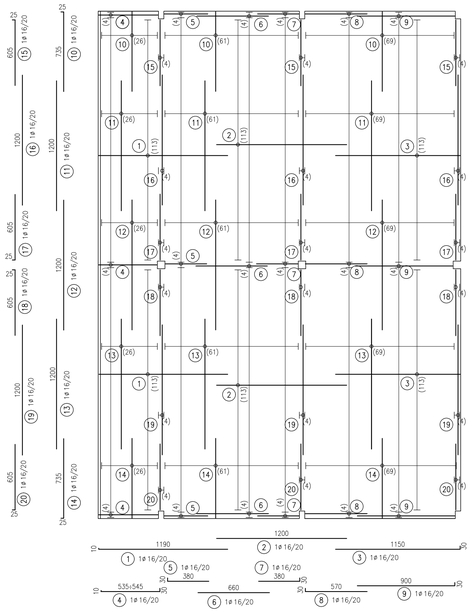


TABELLA FERRI/REBAR TABLE

POS.	ø	L.[cm]	N°	U.W.	WEIGHT [kg]
1	16	1200	226	1.5783	4280.4
2	16	830	226	1.5783	2960.6
3	16	600	12	1.5783	113.6
4	16	780	12	1.5783	147.7
5	16	585	12	1.5783	110.8
6	16	760	88	1.5783	1055.6
7	16	1200	88	1.5783	1666.7
8	16	1200	88	1.5783	1666.7
9	16	1200	88	1.5783	1666.7
10	16	760	88	1.5783	1055.6
11	16	630	8	1.5783	79.5
12	16	1200	8	1.5783	151.5
13	16	630	8	1.5783	79.5
14	16	630	8	1.5783	79.5
15	16	1200	8	1.5783	151.5
16	16	630	8	1.5783	79.5
17	16	1200	226	1.5783	4280.4
18	16	830	226	1.5783	2960.6
19	16	600	12	1.5783	113.6
20	16	780	12	1.5783	147.7
21	16	585	12	1.5783	110.8
22	16	760	88	1.5783	1055.6
23	16	1200	88	1.5783	1666.7
24	16	1200	88	1.5783	1666.7
25	16	1200	88	1.5783	1666.7
26	16	760	88	1.5783	1055.6
27	16	630	8	1.5783	79.5
28	16	1200	8	1.5783	151.5
29	16	630	8	1.5783	79.5
30	16	630	8	1.5783	79.5
31	16	1200	8	1.5783	151.5
32	16	630	8	1.5783	79.5
33	16	1200	42	1.5783	795.5
34	16	830	42	1.5783	550.2
35	12	1200	52	0.8878	554.0
36	12	830	52	0.8878	383.2
37	12	600	91	0.8878	484.7
38	12	600	85	0.8878	452.8
39	12	600	6	0.8878	32.0
40	12	600	6	0.8878	32.0
41	12	600	91	0.8878	484.7
42	16	150	238	1.5783	563.5
43	16	735	8	1.5783	92.8
44	16	1200	8	1.5783	151.5
45	16	1200	8	1.5783	151.5
46	16	1200	8	1.5783	151.5
47	16	735	8	1.5783	92.8
48	12	52	2515	0.8878	1161.1
49	12	52	4940	0.8878	2280.6
50	16	230	8	1.5783	29.0
51	16	230	8	1.5783	29.0
52	16	150	12	1.5783	28.4
53	16	210	6	1.5783	19.9
54	16	150	4	1.5783	9.5
55	16	130	4	1.5783	8.2
56	10	22	238	0.6165	32.3
				ARMATURA TOTALE PLATEA	39262.4

ARMATURA CONCIO/REINFORCEMENT ASHLAR 5

ARMATURA INFERIORE/BOTTOM REINFORCEMENT
SCALA/SCALE 1:200



ARMATURA SUPERIORE/TOP REINFORCEMENT
SCALA/SCALE 1:200

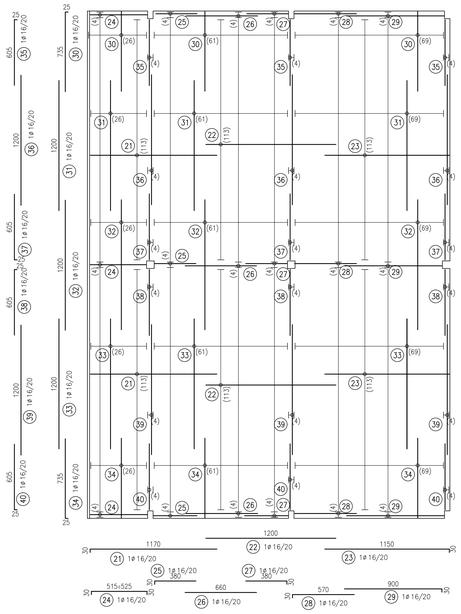


TABELLA FERRI/REBAR TABLE

POS.	ø	L.[cm]	N°	U.W.	WEIGHT [kg]
1	16	1200	226	1.5783	4280.4
2	16	1200	226	1.5783	4280.4
3	16	1180	226	1.5783	4209.1
4	16	585	12	1.5783	110.8
5	16	410	12	1.5783	77.7
6	16	660	12	1.5783	125.0
7	16	410	12	1.5783	77.7
8	16	600	12	1.5783	113.6
9	16	930	12	1.5783	176.1
10	16	760	156	1.5783	1871.3
11	16	1200	156	1.5783	2954.6
12	16	1200	156	1.5783	2954.6
13	16	1200	156	1.5783	2954.6
14	16	760	156	1.5783	1871.3
15	16	630	12	1.5783	119.3
16	16	1200	12	1.5783	227.3
17	16	630	12	1.5783	119.3
18	16	630	12	1.5783	119.3
19	16	1200	12	1.5783	227.3
20	16	630	12	1.5783	119.3
21	16	1200	226	1.5783	4280.4
22	16	1200	226	1.5783	4280.4
23	16	1180	226	1.5783	4209.1
24	16	575	12	1.5783	108.9
25	16	410	12	1.5783	77.7
26	16	660	12	1.5783	125.0
27	16	410	12	1.5783	77.7
28	16	600	12	1.5783	113.6
29	16	930	12	1.5783	176.1
30	16	760	156	1.5783	1871.3
31	16	1200	156	1.5783	2954.6
32	16	1200	156	1.5783	2954.6
33	16	1200	156	1.5783	2954.6
34	16	760	156	1.5783	1871.3
35	16	630	12	1.5783	119.3
36	16	1200	12	1.5783	227.3
37	16	630	12	1.5783	119.3
38	16	630	12	1.5783	119.3
39	16	1200	12	1.5783	227.3
40	16	630	12	1.5783	119.3
41	16	1200	42	1.5783	795.5
42	16	1200	42	1.5783	795.5
43	16	1180	42	1.5783	782.2
44	12	1200	52	0.8878	554.0
45	12	1200	52	0.8878	554.0
46	12	1180	52	0.8878	544.8
47	12	600	160	0.8878	852.3
48	12	600	110	0.8878	586.0
49	12	600	9	0.8878	47.9
50	12	600	9	0.8878	47.9
51	12	600	160	0.8878	852.3
52	16	150	238	1.5783	563.5
53	16	735	8	1.5783	92.8
54	16	1200	8	1.5783	151.5
55	16	1200	8	1.5783	151.5
56	16	1200	2	1.5783	37.9
57	16	735	8	1.5783	92.8
58	12	52	4590	0.8878	2119.0
59	12	52	8630	0.8878	3984.2
60	16	230	8	1.5783	29.0
61	16	230	8	1.5783	29.0
62	16	150	20	1.5783	47.4
63	16	210	10	1.5783	33.1
64	16	130	4	1.5783	8.2
65	16	150	4	1.5783	9.5
66	10	22	238	0.6165	32.3
				ARMATURA TOTALE PLATEA	67770.7

General Notes

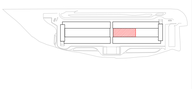
1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise noted. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final installation drawings from shop drawings.
7. Final setting coordinates to be agreed from Interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

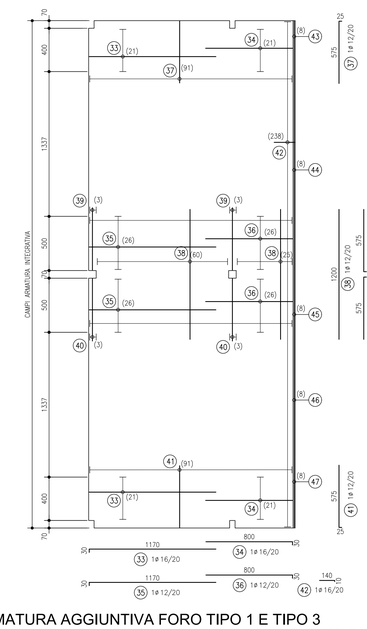
1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni delle attrezzature meccaniche sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche a pacchetto di copertura.
8. Il Committente deve coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

300 0 300 600 900 1200
SCALE 1:300

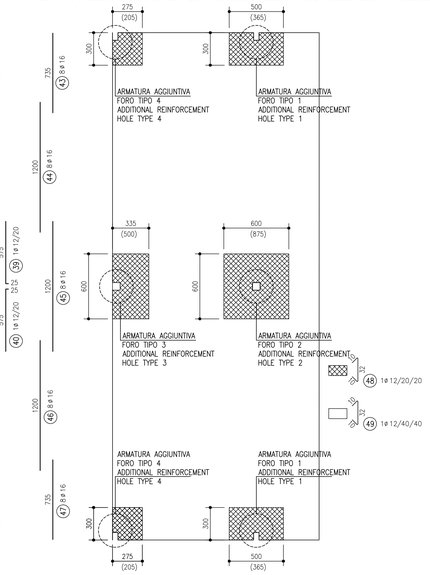
Key Plan



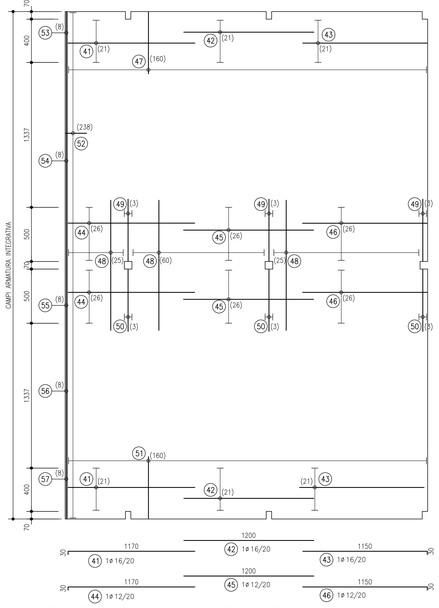
ARMATURA AGGIUNTIVA/ADDITIONAL REINFORCEMENT
SCALA/SCALE 1:200
FERRI CORRENTI SUPERIORI/TOP CURRENT REBAR



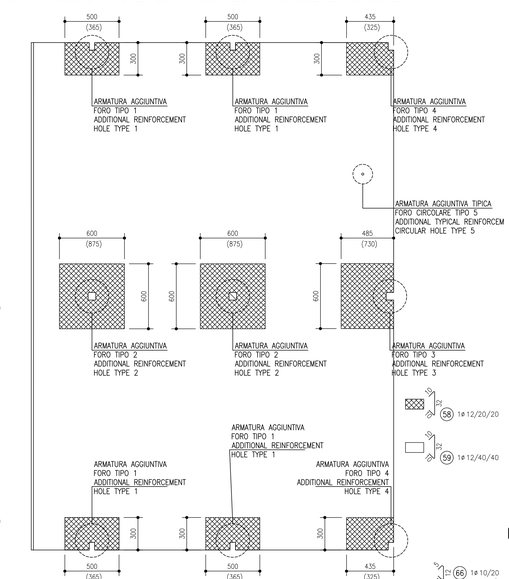
ARMATURA AGGIUNTIVA/ADDITIONAL REINFORCEMENT
SCALA/SCALE 1:200
FERRI A TAGLIO E RINFORZI PER FORI/CUT REBAR AND HOLE REINFORCEMENT



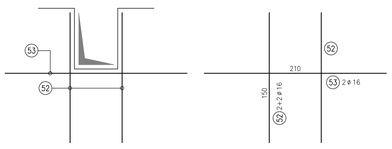
ARMATURA AGGIUNTIVA/ADDITIONAL REINFORCEMENT
SCALA/SCALE 1:200
FERRI CORRENTI SUPERIORI/TOP CURRENT REBAR



ARMATURA AGGIUNTIVA/ADDITIONAL REINFORCEMENT
SCALA/SCALE 1:200
FERRI A TAGLIO E RINFORZI PER FORI/CUT REBAR AND HOLE REINFORCEMENT



ARMATURA AGGIUNTIVA FORO TIPO 1 E TIPO 3
ADDITIONAL HOLE REINFORCEMENT TYPE 1 AND TYPE 3
SCALA/SCALE 1:25
ARMATURA PER 3 FORI/REINFORCEMENT FOR 3 HOLES



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ADDITIONAL HOLE REINFORCEMENT TYPE 2
SCALA/SCALE 1:25
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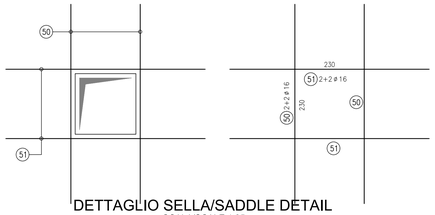
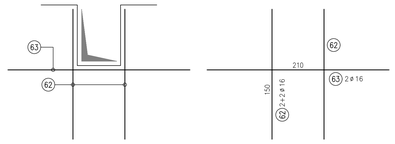


ARMATURA AGGIUNTIVA FORO TIPO 1 E TIPO 3
ADDITIONAL HOLE REINFORCEMENT TYPE 1 AND TYPE 3
SCALA/SCALE 1:25
ARMATURA PER 3 FORI/REINFORCEMENT FOR 3 HOLES



ARMATURA AGGIUNTIVA FORO TIPO 2
ADDITIONAL HOLE REINFORCEMENT TYPE 2
SCALA/SCALE 1:25
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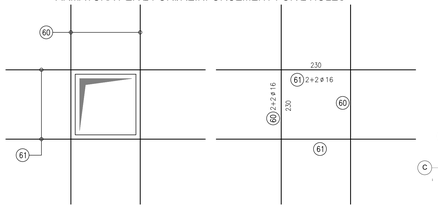

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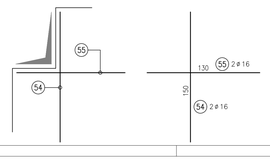
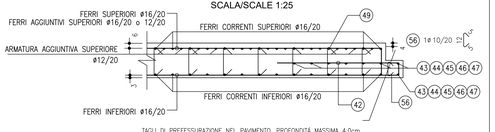
ADDITIONAL HOLE REINFORCEMENT TYPE 4
SCALA/SCALE 1:25
ARMATURA PER 2 FORI/REINFORCEMENT FOR 2 HOLES

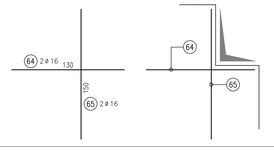


DETTAGLIO SELLA/SADDLE DETAIL
SCALA/SCALE 1:25


FERRI SUPERIORI ø16/20
FERRI AGGIUNTIVI SUPERIORI ø16/20 o 12/20
ARMATURA AGGIUNTIVA SUPERIORE ø12/20
FERRI CORRENTI SUPERIORI ø16/20
FERRI CORRENTI INFERIORI ø16/20
FERRI INFERIORI ø16/20

TAGLI DI PREFESSURAZIONE NEL PAVIMENTO, PROFONDITÀ MASSIMA 4.0cm, POSIZIONE COME DA PROGETTO ARCHITETTONICO

ARMATURA AGGIUNTIVA FORO TIPO 4
ADDITIONAL HOLE REINFORCEMENT TYPE 4
SCALA/SCALE 1:25
ARMATURA PER 2 FORI/REINFORCEMENT FOR 2 HOLES



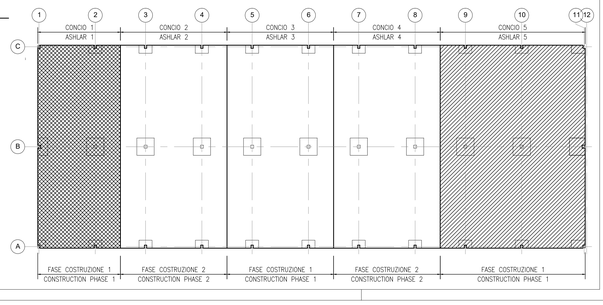
ARMATURA AGGIUNTIVA TIPICA FORO CIRCOLARE TIPO 5
ADDITIONAL TIPICAL REINFORCEMENT CIRCULAR HOLE TYPE 5
SCALA/SCALE 1:25
ARMATURA TIPICA/TYPICAL REINFORCEMENT

DETTAGLIO SELLA/SADDLE DETAIL
SCALA/SCALE 1:25

FERRI SUPERIORI ø16/20
FERRI AGGIUNTIVI SUPERIORI ø16/20 o 12/20
ARMATURA AGGIUNTIVA SUPERIORE ø12/20
FERRI CORRENTI SUPERIORI ø16/20
FERRI CORRENTI INFERIORI ø16/20
FERRI INFERIORI ø16/20

TAGLI DI PREFESSURAZIONE NEL PAVIMENTO, PROFONDITÀ MASSIMA 4.0cm, POSIZIONE COME DA PROGETTO ARCHITETTONICO

PLATEA LATO OVEST - PIANTA CHIAVE
PLATFORM ON THE WEST SIDE - KEY MAP
SCALA/SCALE 1:500


CONCIO 1 ASHLAR 1
CONCIO 2 ASHLAR 2
CONCIO 3 ASHLAR 3
CONCIO 4 ASHLAR 4
CONCIO 5 ASHLAR 5
FASE COSTRUZIONE 1 CONSTRUCTION PHASE 1
FASE COSTRUZIONE 2 CONSTRUCTION PHASE 2

CALCESTRUZZO – CONCRETE

LEAN CONCRETE / MAGRONE
- RESISTENCE CLASS / CLASSE DI RESISTENZA : C12/15

SLAB / PLATEA
- RESISTENCE CLASS / CLASSE DI RESISTENZA : C30/37
- EXPOSURE CLASS / CLASSE DI ESPOSIZIONE : XC2
- MINIMUM CONCRETE COVER / COPRIFERRO MIN. : c=40 mm
- SLUMP / CONSISTENZA : S4
- MAX AGGREGATE SIZE / MAX. AGGREGATO : 25 mm

REBAR / ACCIAIO PER C.A.

- REBARS CLASS / TIPO DI ACCIAIO : B450C

P02	Issued for Construction	CRL/FB/HM/EG	03/02/2023
P01	Issued for Compass Review	CRL/FB/HM/EG	16/12/2022
Details			

Client:
COMPASS DATACENTERS

Architectural / Civil / Structural:
STANTEC
MAESTRALE
ARIATTA ingegneria strutturale
Rebora Impianti Ingegneria

Lead Consultant / MEP Designer:
Block & White Engineering
Office No. 1601
Marina Plaza
Dubai marina
PO Box 27733
Tel.: +971 4 365 2228
www.bw-engineering.com

Project Title:
MXP I-I

Drawing Title:
Foundations
Raft Foundation Reinforcement and Details
Sector DH-3&DH-4
Part 1/2

Project Status:
ISSUED FOR CONSTRUCTION

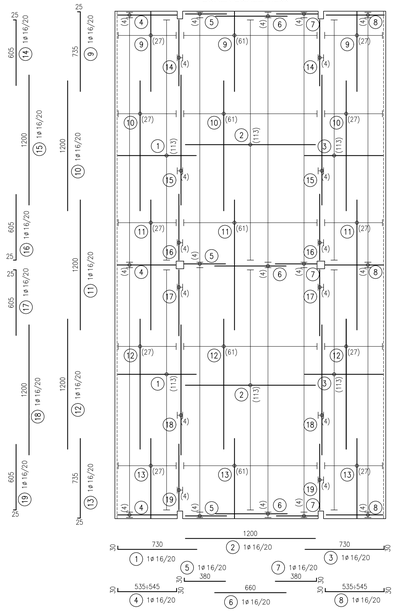
Discipline	Status Code
Structural	S5
Project Number	**Scale @ A0** / **Revision**
P10424	1:200/25 / P02

Drawing Number:
SB503

A0 - Do not scale

ARMATURA CONCIO/REINFORCEMENT ASHLAR 2 - 4

ARMATURA INFERIORE/BOTTOM REINFORCEMENT
SCALA/SCALE 1:200



ARMATURA SUPERIORE/TOP REINFORCEMENT
SCALA/SCALE 1:200

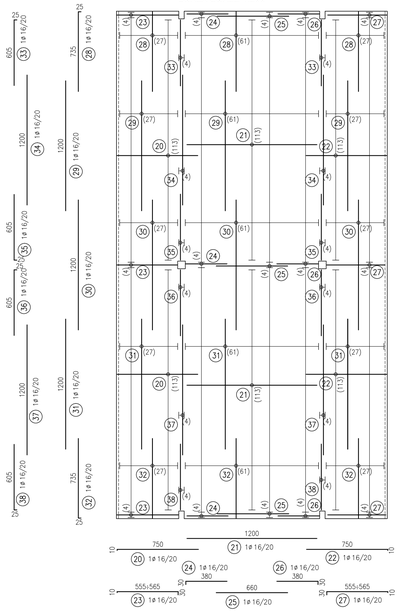
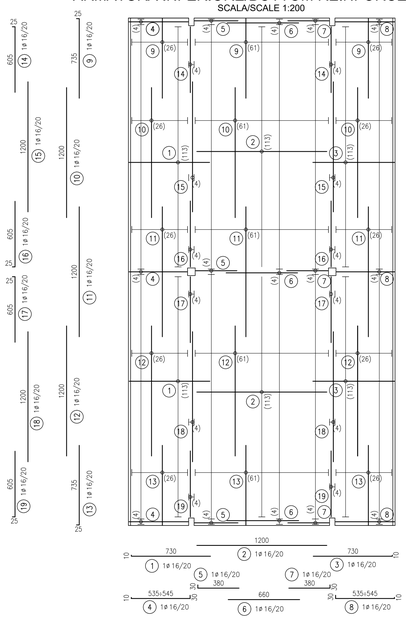


TABELLA FERRI/REBAR TABLE

POS.	ø	L.[cm]	N°	U.W.	WEIGHT [kg]
1	16	760	226	1.5783	2711.0
2	16	1200	226	1.5783	4280.4
3	16	760	226	1.5783	2711.0
4	16	605	12	1.5783	114.6
5	16	410	12	1.5783	77.7
6	16	660	12	1.5783	125.0
7	16	410	12	1.5783	77.7
8	16	605	12	1.5783	114.6
9	16	760	115	1.5783	1379.5
10	16	1200	115	1.5783	2178.1
11	16	1200	115	1.5783	2178.1
12	16	1200	115	1.5783	2178.1
13	16	760	115	1.5783	1379.5
14	16	630	8	1.5783	79.5
15	16	1200	8	1.5783	151.5
16	16	630	8	1.5783	79.5
17	16	630	8	1.5783	79.5
18	16	1200	8	1.5783	151.5
19	16	630	8	1.5783	79.5
20	16	760	226	1.5783	2711.0
21	16	1200	226	1.5783	4280.4
22	16	760	226	1.5783	2711.0
23	16	605	12	1.5783	114.6
24	16	410	12	1.5783	77.7
25	16	660	12	1.5783	125.0
26	16	410	12	1.5783	77.7
27	16	605	12	1.5783	114.6
28	16	760	115	1.5783	1379.5
29	16	1200	115	1.5783	2178.1
30	16	1200	115	1.5783	2178.1
31	16	1200	115	1.5783	2178.1
32	16	760	115	1.5783	1379.5
33	16	630	8	1.5783	79.5
34	16	1200	8	1.5783	151.5
35	16	630	8	1.5783	79.5
36	16	630	8	1.5783	79.5
37	16	1200	8	1.5783	151.5
38	16	630	8	1.5783	79.5
39	16	760	42	1.5783	503.8
40	16	1200	42	1.5783	795.5
41	16	760	42	1.5783	503.8
43	12	760	52	0.8878	350.9
44	16	1200	52	1.5783	984.9
45	16	760	52	1.5783	623.8
46	12	600	118	0.8878	628.6
47	12	600	112	0.8878	596.6
48	12	600	6	0.8878	32.0
49	12	600	6	0.8878	32.0
50	12	600	118	0.8878	628.6
51	16	150	238	1.5783	563.5
52	16	140	238	1.5783	525.9
53	16	735	16	1.5783	185.6
54	16	1200	16	1.5783	303.0
55	16	1200	16	1.5783	303.0
56	16	1200	16	1.5783	303.0
57	16	735	16	1.5783	185.6
58	12	52	3210	0.8878	1481.9
59	12	52	7370	0.8878	3402.5
60	16	230	8	1.5783	29.0
61	16	230	8	1.5783	29.0
62	16	150	16	1.5783	37.9
63	16	210	8	1.5783	26.5
64	10	22	476	0.6165	64.6
TOTAL PLATFORM REINFORCEMENT					53374.1

ARMATURA CONCIO/REINFORCEMENT ASHLAR 3

ARMATURA INFERIORE/BOTTOM REINFORCEMENT
SCALA/SCALE 1:200



ARMATURA SUPERIORE/TOP REINFORCEMENT
SCALA/SCALE 1:200

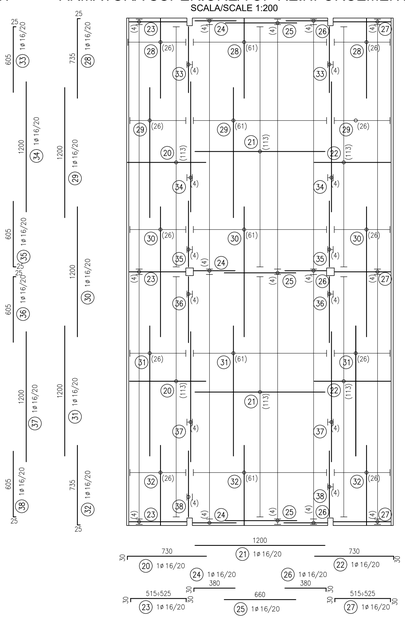
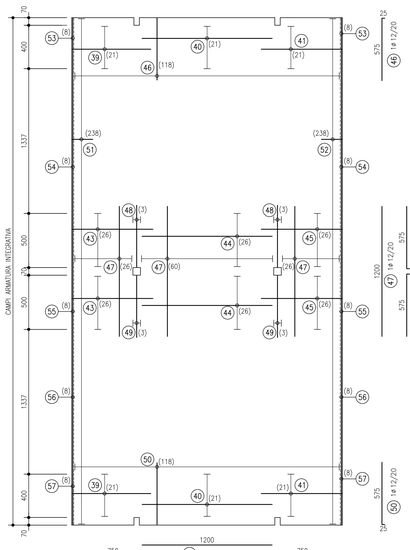


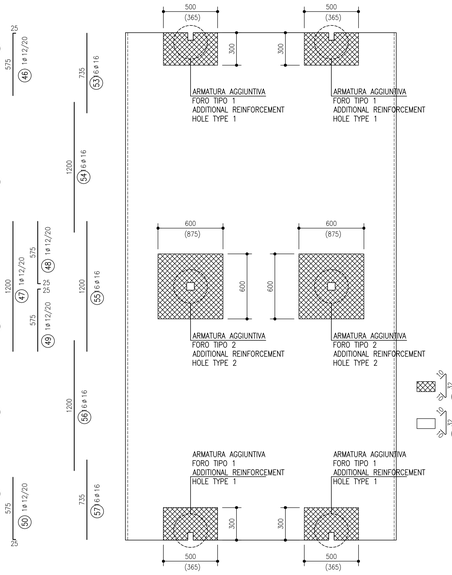
TABELLA FERRI/REBAR TABLE

POS.	ø	L.[cm]	N°	U.W.	WEIGHT [kg]
1	16	740	226	1.5783	2639.6
2	16	1200	226	1.5783	4280.4
3	16	740	226	1.5783	2639.6
4	16	585	12	1.5783	110.8
5	16	410	12	1.5783	77.7
6	16	660	12	1.5783	125.0
7	16	410	12	1.5783	77.7
8	16	585	12	1.5783	110.8
9	16	760	113	1.5783	1355.5
10	16	1200	113	1.5783	2140.2
11	16	1200	113	1.5783	2140.2
12	16	1200	113	1.5783	2140.2
13	16	760	113	1.5783	1355.5
14	16	630	8	1.5783	79.5
15	16	1200	8	1.5783	151.5
16	16	630	8	1.5783	79.5
17	16	630	8	1.5783	79.5
18	16	1200	8	1.5783	151.5
19	16	630	8	1.5783	79.5
20	16	760	226	1.5783	2711.0
21	16	1200	226	1.5783	4280.4
22	16	760	226	1.5783	2711.0
23	16	575	12	1.5783	108.9
24	16	410	12	1.5783	77.7
25	16	660	12	1.5783	125.0
26	16	410	12	1.5783	77.7
27	16	575	12	1.5783	108.9
28	16	760	113	1.5783	1355.5
29	16	1200	113	1.5783	2140.2
30	16	1200	113	1.5783	2140.2
31	16	1200	113	1.5783	2140.2
32	16	760	113	1.5783	1355.5
33	16	630	8	1.5783	79.5
34	16	1200	8	1.5783	151.5
35	16	630	8	1.5783	79.5
36	16	630	8	1.5783	79.5
37	16	1200	8	1.5783	151.5
38	16	630	8	1.5783	79.5
39	16	740	42	1.5783	490.5
40	16	1200	42	1.5783	795.5
41	16	740	42	1.5783	490.5
43	12	740	52	0.8878	341.6
44	16	1200	52	1.5783	984.9
45	16	740	52	1.5783	607.3
46	12	600	116	0.8878	617.9
47	12	600	110	0.8878	586.0
48	12	600	6	0.8878	32.0
49	12	600	6	0.8878	32.0
50	12	600	116	0.8878	617.9
51	16	150	238	1.5783	563.5
52	16	150	238	1.5783	563.5
53	16	735	16	1.5783	185.6
54	16	1200	16	1.5783	303.0
55	16	1200	16	1.5783	303.0
56	16	1200	16	1.5783	303.0
57	16	735	16	1.5783	185.6
58	12	52	3210	0.8878	1481.9
59	12	52	7250	0.8878	3347.1
60	16	230	8	1.5783	29.0
61	16	230	8	1.5783	29.0
62	16	150	16	1.5783	37.9
63	16	210	8	1.5783	26.5
64	10	22	476	0.6165	64.6
TOTAL PLATFORM REINFORCEMENT					52787.2

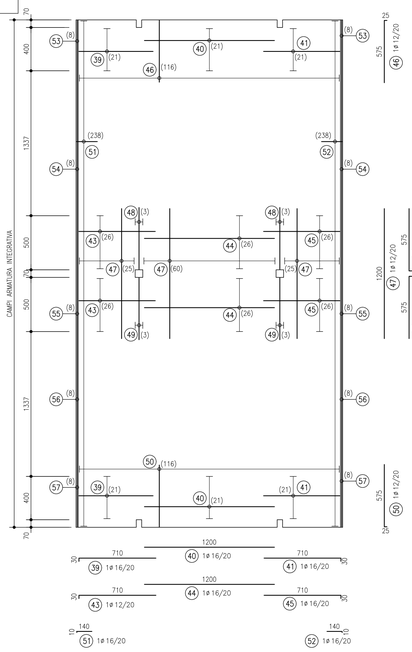
ARMATURA AGGIUNTIVA/ADDITIONAL REINFORCEMENT
SCALA/SCALE 1:200
FERRI CORRENTI SUPERIORI/TOP CURRENT REBAR



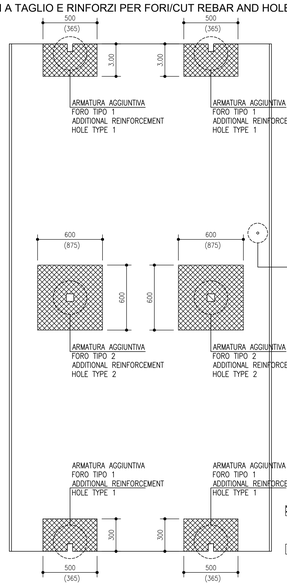
ARMATURA AGGIUNTIVA/ADDITIONAL REINFORCEMENT
SCALA/SCALE 1:200
FERRI A TAGLIO E RINFORZI PER FORI/CUT REBAR AND HOLE REINFORCEMENT



ARMATURA AGGIUNTIVA/ADDITIONAL REINFORCEMENT
SCALA/SCALE 1:200
FERRI CORRENTI SUPERIORI/TOP CURRENT REBAR

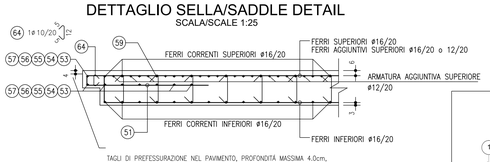


ARMATURA AGGIUNTIVA/ADDITIONAL REINFORCEMENT
SCALA/SCALE 1:200
FERRI A TAGLIO E RINFORZI PER FORI/CUT REBAR AND HOLE REINFORCEMENT

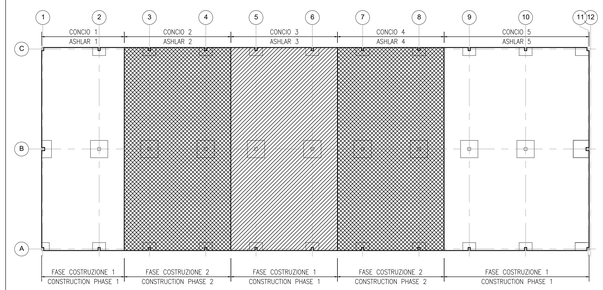


DETTAGLIO SELLA/SADDLE DETAIL
SCALA/SCALE 1:25

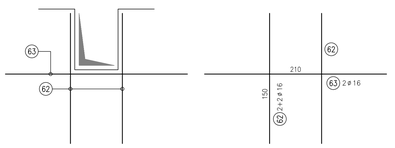
DETTAGLIO SELLA/SADDLE DETAIL
SCALA/SCALE 1:25



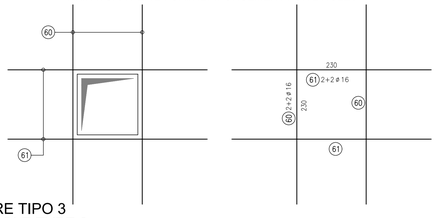
PLATEA LATO OVEST - PIANTA CHIAVE
PLATFORM ON THE WEST SIDE - KEY MAP
SCALA/SCALE 1:500



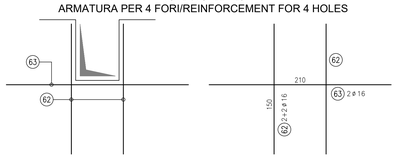
ARMATURA AGGIUNTIVA FORO TIPO 1
ADDITIONAL HOLE REINFORCEMENT TYPE 1
SCALA/SCALE 1:25
ARMATURA PER 4 FORI/REINFORCEMENT FOR 4 HOLES



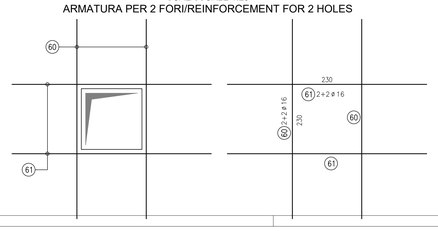
ARMATURA AGGIUNTIVA FORO TIPO 2
ADDITIONAL HOLE REINFORCEMENT TYPE 2
SCALA/SCALE 1:25
ARMATURA PER 2 FORI/REINFORCEMENT FOR 2 HOLES



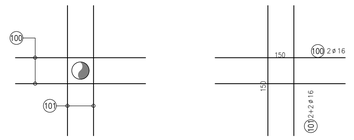
ARMATURA AGGIUNTIVA FORO TIPO 1
ADDITIONAL HOLE REINFORCEMENT TYPE 1
SCALA/SCALE 1:25
ARMATURA PER 4 FORI/REINFORCEMENT FOR 4 HOLES



ARMATURA AGGIUNTIVA FORO TIPO 2
ADDITIONAL HOLE REINFORCEMENT TYPE 2
SCALA/SCALE 1:25
ARMATURA PER 2 FORI/REINFORCEMENT FOR 2 HOLES



ARMATURA AGGIUNTIVA TIPICA FORO CIRCOLARE TIPO 3
ADDITIONAL TIPICAL REINFORCEMENT CIRCULAR HOLE TYPE 3
SCALA/SCALE 1:25
ARMATURA TIPICA/TYPICAL REINFORCEMENT



CALCESTRUZZO – CONCRETE	
LEAN CONCRETE / MAGRONE	
– RESISTENCE CLASS / CLASSE DI RESISTENZA	: C12/15
SLAB / PLATEA	
– RESISTENCE CLASS / CLASSE DI RESISTENZA	: C30/37
– EXPOZSURE CLASS / CLASSE DI ESPOSIZIONE	: XC2
– MINIMUM CONCRETE COVER / COPRIFERRO MIN.	: c=40 mm
– SLUMP / CONSISTENZA	: S4
– MAX AGGREGATE SIZE / MAX. AGGREGATO	: 25 mm
REBAR / ACCIAIO PER C.A.	
– REBARS CLASS / TIPO DI ACCIAIO	: B450C

General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise noted. Indicate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
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5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final installation/construction shop drawings.
7. Final ceiling coordinated with interior design package.
8. Contractor to coordinate final distribution routes and with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
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3. Tutte le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
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7. Le quote degli impianti finiti dipendono da eventuali modifiche ai pacchetti di copertura.
8. Il costruttore deve coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

Key Plan

P02	Issued for Construction	CRU/FIB/HME/G 03/02/2023
P01	Issued for Compass Review	CRU/FIB/HME/G 16/12/2022

Details

Client

COMPASS

Architectural / Civil / Structural

MAESTRALE

Lead Consultant / MEP Designer

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Gold Tower
Dubai-Marina
PO Box 27783
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Foundations
Raft Foundation Reinforcement and Details
Sector DH-3&DH-4
Part 2/2

Project Status
ISSUED FOR CONSTRUCTION

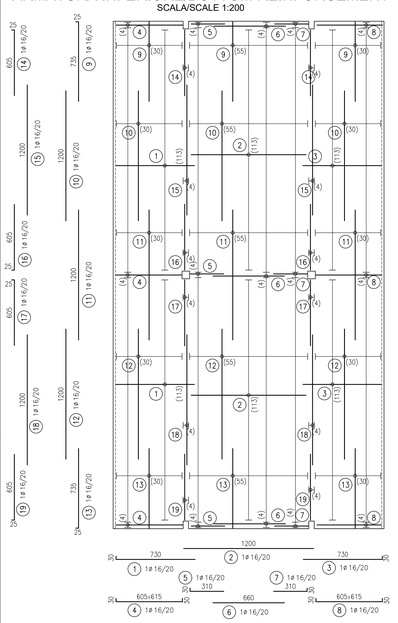
Discipline	Status Code
Structural	S5
Project Number	Scale @ A0 / Revision
P10424	1:200/25 / P02

Drawing Number
SB504

A0 - Do not scale

ARMATURA CONCIO/REINFORCEMENT ASHLAR 7 AND 9

ARMATURA INFERIORE/BOTTOM REINFORCEMENT
SCALA/SCALE 1:200



ARMATURA SUPERIORE/TOP REINFORCEMENT
SCALA/SCALE 1:200

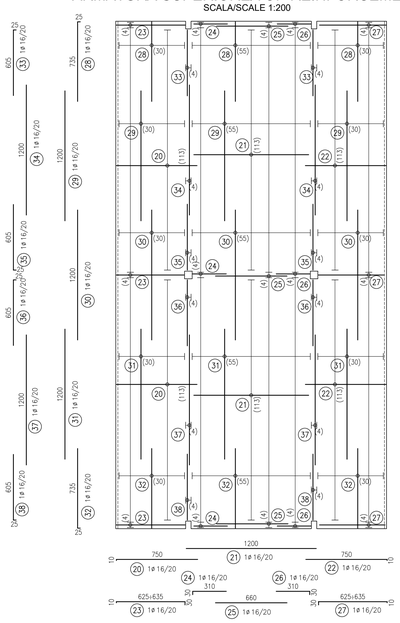
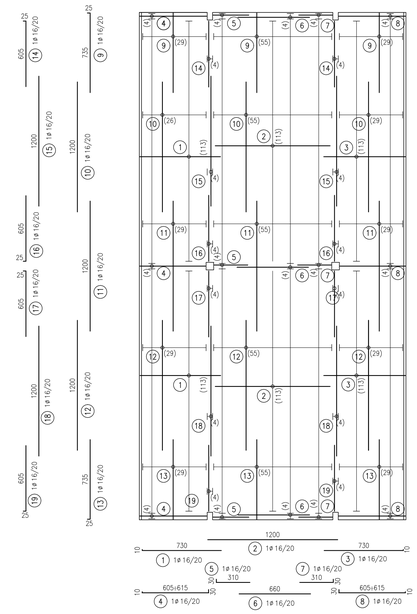


TABELLA FERRI/REBAR TABLE					
POS.	ø	L.[cm]	N°	U.W.	WEIGHT [kg]
1	16	760	226	1.5783	2711.0
2	16	1200	226	1.5783	4280.4
3	16	760	226	1.5783	2711.0
4	16	675	12	1.5783	127.8
5	16	340	12	1.5783	64.4
6	16	660	12	1.5783	125.0
7	16	340	12	1.5783	64.4
8	16	675	12	1.5783	127.8
9	16	760	115	1.5783	1379.5
10	16	1200	115	1.5783	2178.1
11	16	1200	115	1.5783	2178.1
12	16	1200	115	1.5783	2178.1
13	16	760	115	1.5783	1379.5
14	16	630	8	1.5783	79.5
15	16	1200	8	1.5783	151.5
16	16	630	8	1.5783	79.5
17	16	630	8	1.5783	79.5
18	16	1200	8	1.5783	151.5
19	16	630	8	1.5783	79.5
20	16	760	226	1.5783	2711.0
21	16	1200	226	1.5783	4280.4
22	16	760	226	1.5783	2711.0
23	16	675	12	1.5783	127.8
24	16	340	12	1.5783	64.4
25	16	660	12	1.5783	125.0
26	16	340	12	1.5783	64.4
27	16	675	12	1.5783	127.8
28	16	760	115	1.5783	1379.5
29	16	1200	115	1.5783	2178.1
30	16	1200	115	1.5783	2178.1
31	16	1200	115	1.5783	2178.1
32	16	760	115	1.5783	1379.5
33	16	630	8	1.5783	79.5
34	16	1200	8	1.5783	151.5
35	16	630	8	1.5783	79.5
36	16	630	8	1.5783	79.5
37	16	1200	8	1.5783	151.5
38	16	630	8	1.5783	79.5
39	16	760	42	1.5783	503.8
40	16	1200	42	1.5783	795.5
41	16	760	42	1.5783	503.8
43	12	760	52	0.8878	350.9
44	16	1200	52	1.5783	984.9
45	16	760	52	1.5783	623.8
46	12	600	118	0.8878	628.6
47	12	600	112	0.8878	596.6
48	12	600	6	0.8878	32.0
49	12	600	6	0.8878	32.0
50	12	600	118	0.8878	628.6
51	16	150	238	1.5783	563.5
52	16	140	238	1.5783	525.9
53	16	735	16	1.5783	185.6
54	16	1200	16	1.5783	303.0
55	16	1200	16	1.5783	303.0
56	16	1200	16	1.5783	303.0
57	16	735	16	1.5783	185.6
58	12	52	3210	0.8878	1481.9
59	12	52	7370	0.8878	3402.5
60	16	230	8	1.5783	29.0
61	16	230	8	1.5783	29.0
62	16	150	16	1.5783	37.9
63	16	210	8	1.5783	26.5
64	10	22	476	0.6165	64.6
TOTAL PLATFORM REINFORCEMENT					53374.1

ARMATURA CONCIO/REINFORCEMENT ASHLAR 8

ARMATURA INFERIORE/BOTTOM REINFORCEMENT
SCALA/SCALE 1:200



ARMATURA SUPERIORE/TOP REINFORCEMENT
SCALA/SCALE 1:200

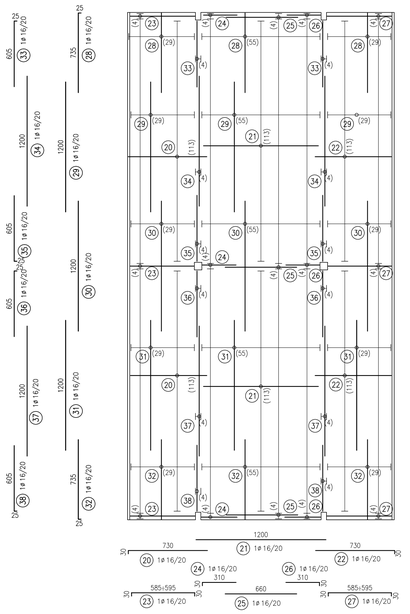


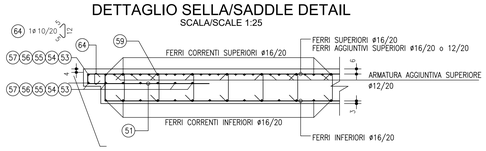
TABELLA FERRI/REBAR TABLE					
POS.	ø	L.[cm]	N°	U.W.	WEIGHT [kg]
1	16	740	226	1.5783	2639.6
2	16	1200	226	1.5783	4280.4
3	16	740	226	1.5783	2639.6
4	16	655	12	1.5783	124.1
5	16	340	12	1.5783	64.4
6	16	660	12	1.5783	125.0
7	16	340	12	1.5783	64.4
8	16	655	12	1.5783	124.1
9	16	760	113	1.5783	1355.5
10	16	1200	113	1.5783	2140.2
11	16	1200	113	1.5783	2140.2
12	16	1200	113	1.5783	2140.2
13	16	760	113	1.5783	1355.5
14	16	630	8	1.5783	79.5
15	16	1200	8	1.5783	151.5
16	16	630	8	1.5783	79.5
17	16	630	8	1.5783	79.5
18	16	1200	8	1.5783	151.5
19	16	630	8	1.5783	79.5
20	16	760	226	1.5783	2711.0
21	16	1200	226	1.5783	4280.4
22	16	760	226	1.5783	2711.0
23	16	655	12	1.5783	124.1
24	16	340	12	1.5783	64.4
25	16	660	12	1.5783	125.0
26	16	340	12	1.5783	64.4
27	16	655	12	1.5783	124.1
28	16	760	113	1.5783	1355.5
29	16	1200	113	1.5783	2140.2
30	16	1200	113	1.5783	2140.2
31	16	1200	113	1.5783	2140.2
32	16	760	113	1.5783	1355.5
33	16	630	8	1.5783	79.5
34	16	1200	8	1.5783	151.5
35	16	630	8	1.5783	79.5
36	16	630	8	1.5783	79.5
37	16	1200	8	1.5783	151.5
38	16	630	8	1.5783	79.5
39	16	740	42	1.5783	490.5
40	16	1200	42	1.5783	795.5
41	16	740	42	1.5783	490.5
43	12	740	52	0.8878	341.6
44	16	1200	52	1.5783	984.9
45	16	740	52	1.5783	607.3
46	12	600	116	0.8878	617.9
47	12	600	110	0.8878	586.0
48	12	600	6	0.8878	32.0
49	12	600	6	0.8878	32.0
50	12	600	116	0.8878	617.9
51	16	150	238	1.5783	563.5
52	16	150	238	1.5783	563.5
53	16	735	16	1.5783	185.6
54	16	1200	16	1.5783	303.0
55	16	1200	16	1.5783	303.0
56	16	1200	16	1.5783	303.0
57	16	735	16	1.5783	185.6
58	12	52	3210	0.8878	1481.9
59	12	52	7250	0.8878	3347.1
60	16	230	8	1.5783	29.0
61	16	230	8	1.5783	29.0
62	16	150	16	1.5783	37.9
63	16	210	8	1.5783	26.5
64	10	22	476	0.6165	64.6
TOTAL PLATFORM REINFORCEMENT					52791.0

ARMATURA AGGIUNTIVA/ADDITIONAL REINFORCEMENT
SCALA/SCALE 1:200

FERRI CORRENTI SUPERIORI/TOP CURRENT REBAR

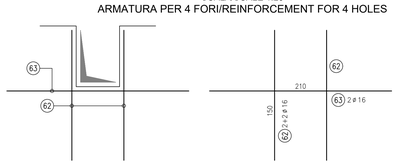
FERRI A TAGLIO E RINFORZI PER FORI/CUT REBAR AND HOLE REINFORCEMENT

DETTAGLIO SELLA/SADDLE DETAIL
SCALA/SCALE 1:25

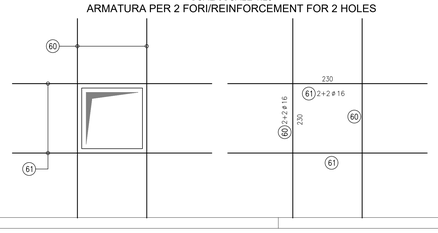


TAGLI DI PREFESSURAZIONE NEL PAVIMENTO, PROFONDITÀ MASSIMA 4.0cm,
POSIZIONE COME DA PROGETTO ARCHITETTONICO

ARMATURA AGGIUNTIVA FORO TIPO 1
ADDITIONAL HOLE REINFORCEMENT TYPE 1
SCALA/SCALE 1:25
ARMATURA PER 4 FORI/REINFORCEMENT FOR 4 HOLES



ARMATURA AGGIUNTIVA FORO TIPO 2
ADDITIONAL HOLE REINFORCEMENT TYPE 2
SCALA/SCALE 1:25
ARMATURA PER 2 FORI/REINFORCEMENT FOR 2 HOLES



ARMATURA AGGIUNTIVA/ADDITIONAL REINFORCEMENT
SCALA/SCALE 1:200

FERRI CORRENTI SUPERIORI/TOP CURRENT REBAR

ARMATURA AGGIUNTIVA FORO TIPO 1
ADDITIONAL HOLE REINFORCEMENT TYPE 1
SCALA/SCALE 1:25
ARMATURA PER 4 FORI/REINFORCEMENT FOR 4 HOLES

ARMATURA AGGIUNTIVA FORO TIPO 2
ADDITIONAL HOLE REINFORCEMENT TYPE 2
SCALA/SCALE 1:25
ARMATURA PER 2 FORI/REINFORCEMENT FOR 2 HOLES

ARMATURA AGGIUNTIVA/ADDITIONAL REINFORCEMENT
SCALA/SCALE 1:200

FERRI A TAGLIO E RINFORZI PER FORI/CUT REBAR AND HOLE REINFORCEMENT

DETTAGLIO SELLA/SADDLE DETAIL
SCALA/SCALE 1:25

TAGLI DI PREFESSURAZIONE NEL PAVIMENTO, PROFONDITÀ MASSIMA 4.0cm,
POSIZIONE COME DA PROGETTO ARCHITETTONICO

ARMATURA AGGIUNTIVA TIPICA FORO CIRCOLARE TIPO 3
ADDITIONAL TIPICAL REINFORCEMENT CIRCULAR HOLE TYPE 3
SCALA/SCALE 1:25
ARMATURA TIPICA/TYPICAL REINFORCEMENT

CALCESTRUZZO – CONCRETE

LEAN CONCRETE / MAGRONE
- RESISTENCE CLASS / CLASSE DI RESISTENZA : C12/15

SLAB / PLATEA
- RESISTENCE CLASS / CLASSE DI RESISTENZA : C30/37
- EXPOZSURE CLASS / CLASSE DI ESPOSIZIONE : XC2
- MINIMUM CONCRETE COVER / COPRIFERRO MIN. : c=40 mm
- SLUMP / CONSISTENZA : S4
- MAX AGGREGATE SIZE / MAX. AGGREGATO : 25 mm

REBAR / ACCIAIO PER C.A.

- REBARS CLASS / TIPO DI ACCIAIO : B450C

PLATEA LATO EST - PIANTA CHIAVE
PLATFORM ON THE EAST SIDE - KEY MAP
SCALA/SCALE 1:500

General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
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8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
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7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetti di copertura.
8. Il costruttore deve coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
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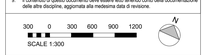

Key Plan

P02	Issued for Construction	CRL/FB/HM/EG	03/02/2023
P01	Issued for Compass Review	CRL/FB/HM/EG	16/12/2022
Details			

Client

COMPASS DEVELOPERS

Architectural / Civil / Structural

MAESTRALE

Lead Consultant / MEP Designer

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Project Title
MXP I-I

Drawing Title
Foundations
Raft Foundation Reinforcement and Details
Sector DH-1&DH-2
Part 1/2

Project Status
ISSUED FOR CONSTRUCTION

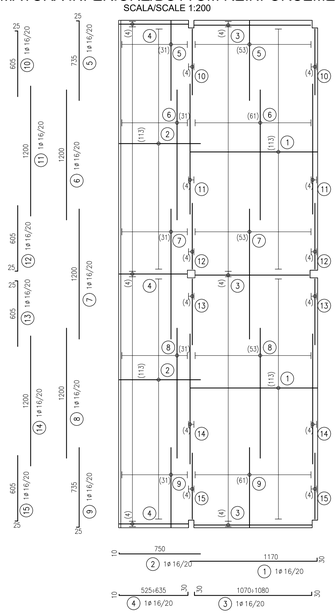
Discipline	Status Code
Structural	**S5**
Project Number	**Scale @ A0**	**Revision**
P10424	**1:200/25**	**P02**

Drawing Number
SB505

A0 - Do not scale

ARMATURA CONCIO/REINFORCEMENT ASHLAR 10

ARMATURA INFERIORE/BOTTOM REINFORCEMENT
SCALA/SCALE 1:200



ARMATURA SUPERIORE/TOP REINFORCEMENT
SCALA/SCALE 1:200

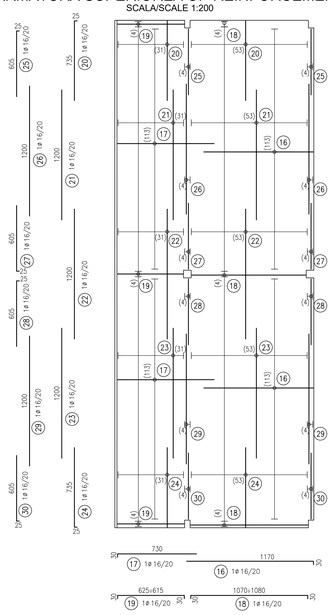
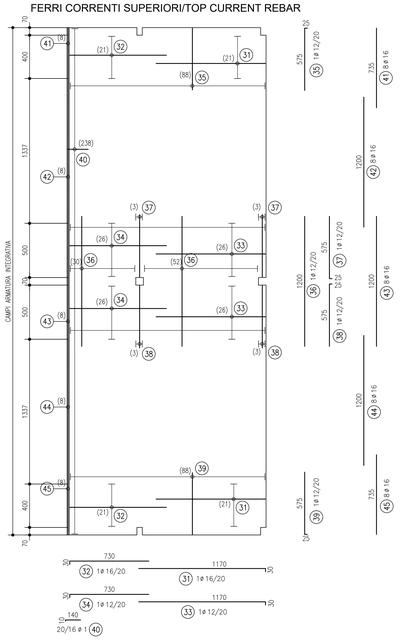
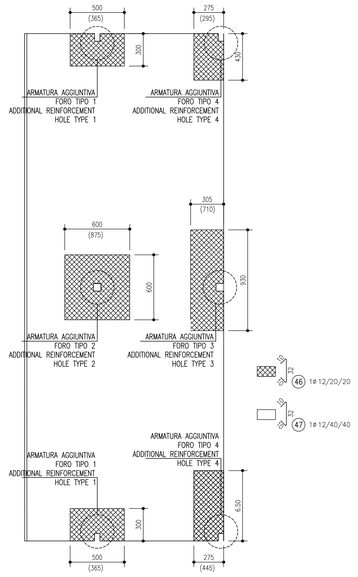


TABELLA FERRI/TOTAL REBAR					
POS.	ø	L[cm]	N°	U.W.	WEIGHT [kg]
1	16	1200	226	1.5783	4280.4
2	16	760	226	1.5783	2711.0
3	16	1140	12	1.5783	215.9
4	16	675	12	1.5783	127.8
5	16	760	84	1.5783	1007.6
6	16	1200	84	1.5783	1591.0
7	16	1200	84	1.5783	1591.0
8	16	1200	84	1.5783	1591.0
9	16	760	84	1.5783	1007.6
10	16	630	8	1.5783	79.5
11	16	1200	8	1.5783	151.5
12	16	630	8	1.5783	79.5
13	16	630	8	1.5783	79.5
14	16	1200	8	1.5783	151.5
15	16	630	8	1.5783	79.5
16	16	1200	226	1.5783	4280.4
17	16	760	226	1.5783	2711.0
18	16	1140	12	1.5783	215.9
19	16	675	12	1.5783	127.8
20	16	760	84	1.5783	1007.6
21	16	1200	84	1.5783	1591.0
22	16	1200	84	1.5783	1591.0
23	16	1200	84	1.5783	1591.0
24	16	760	84	1.5783	1007.6
25	16	630	8	1.5783	79.5
26	16	1200	8	1.5783	151.5
27	16	630	8	1.5783	79.5
28	16	630	8	1.5783	79.5
29	16	1200	8	1.5783	151.5
30	16	630	8	1.5783	79.5
31	16	1200	42	1.5783	795.5
32	16	760	42	1.5783	503.8
33	12	1200	52	0.8878	554.0
34	12	760	52	0.8878	350.9
35	12	600	88	0.8878	468.8
36	12	600	82	0.8878	436.8
37	12	600	6	0.8878	32.0
38	12	600	6	0.8878	32.0
39	12	600	88	0.8878	468.8
40	16	150	238	1.5783	563.5
41	16	735	8	1.5783	92.8
42	16	1200	8	1.5783	151.5
43	16	1200	8	1.5783	151.5
44	16	1200	8	1.5783	151.5
45	16	735	8	1.5783	92.8
46	12	52	3055	0.8878	1410.4
47	12	52	4460	0.8878	2059.0
48	16	230	8	1.5783	29.0
49	16	230	8	1.5783	29.0
50	16	150	12	1.5783	28.4
51	16	210	6	1.5783	19.9
52	16	150	4	1.5783	9.5
53	16	130	4	1.5783	8.2
54	10	22	238	0.6165	32.3
TOTAL PLATFORM REINFORCEMENT					37960.8

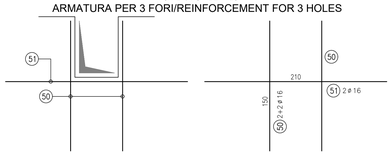
ARMATURA AGGIUNTIVA/ADDITIONAL REINFORCEMENT
SCALA/SCALE 1:200
FERRI CORRENTI SUPERIORI/TOP CURRENT REBAR



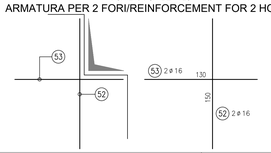
ARMATURA AGGIUNTIVA/ADDITIONAL REINFORCEMENT
SCALA/SCALE 1:200
FERRI A TAGLIO E RINFORZI PER FORI/CUT REBAR AND HOLE REINFORCEMENT



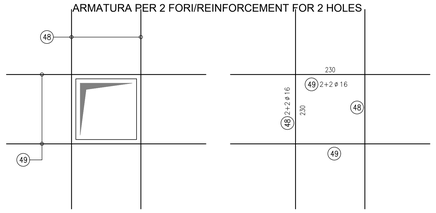
ARMATURA AGGIUNTIVA FORO TIPO 1 E TIPO 3
ADDITIONAL HOLE REINFORCEMENT TYPE 1 AND TYPE 3
SCALA/SCALE 1:25
ARMATURA PER 3 FORI/REINFORCEMENT FOR 3 HOLES



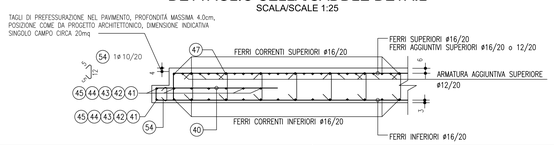
ARMATURA AGGIUNTIVA FORO TIPO 4
ADDITIONAL HOLE REINFORCEMENT TYPE 4
SCALA/SCALE 1:25
ARMATURA PER 2 FORI/REINFORCEMENT FOR 2 HOLES



ARMATURA AGGIUNTIVA FORO TIPO 2
ADDITIONAL HOLE REINFORCEMENT TYPE 2
SCALA/SCALE 1:25
ARMATURA PER 2 FORI/REINFORCEMENT FOR 2 HOLES

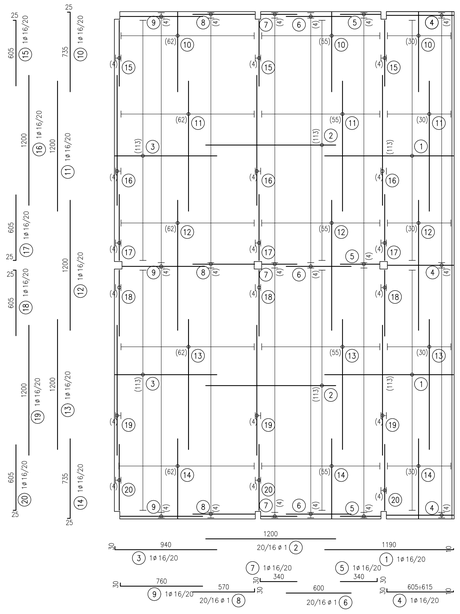


DETTAGLIO SELLA/SADDLE DETAIL
SCALA/SCALE 1:25



ARMATURA CONCIO/REINFORCEMENT ASHLAR 6

ARMATURA INFERIORE/BOTTOM REINFORCEMENT
SCALA/SCALE 1:200



ARMATURA SUPERIORE/TOP REINFORCEMENT
SCALA/SCALE 1:200

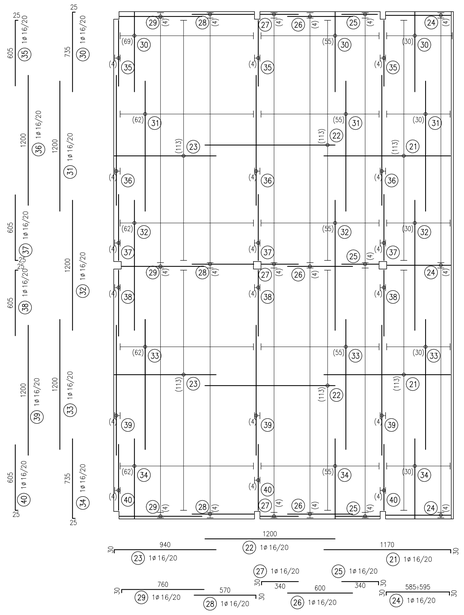
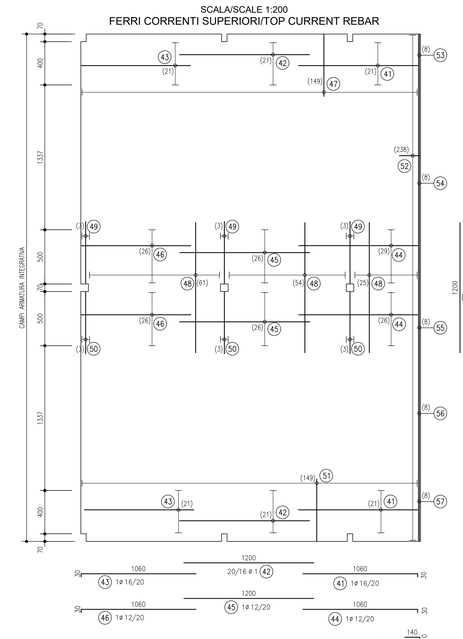
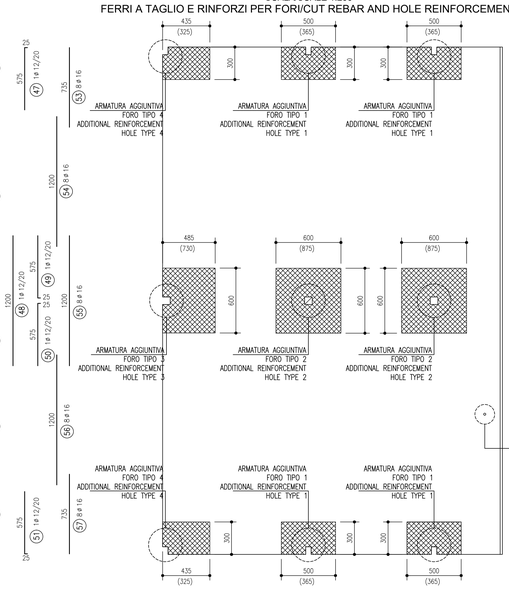


TABELLA FERRI/TOTAL REBAR					
POS.	ø	L[cm]	N°	U.W.	WEIGHT [kg]
1	16	1200	226	1.5783	4280.4
2	16	1200	226	1.5783	4280.4
3	16	970	226	1.5783	3460.0
4	16	655	12	1.5783	124.1
5	16	370	12	1.5783	70.1
6	16	600	12	1.5783	113.6
7	16	370	12	1.5783	70.1
8	16	600	12	1.5783	113.6
9	16	790	12	1.5783	149.6
10	16	760	147	1.5783	1763.3
11	16	1200	147	1.5783	2784.2
12	16	1200	147	1.5783	2784.2
13	16	1200	147	1.5783	2784.2
14	16	760	147	1.5783	1763.3
15	16	630	12	1.5783	119.3
16	16	1200	12	1.5783	227.3
17	16	630	12	1.5783	119.3
18	16	630	12	1.5783	119.3
19	16	1200	12	1.5783	227.3
20	16	630	12	1.5783	119.3
21	16	1200	226	1.5783	4280.4
22	16	1200	226	1.5783	4280.4
23	16	970	226	1.5783	3460.0
24	16	655	12	1.5783	124.1
25	16	340	12	1.5783	64.4
26	16	600	12	1.5783	113.6
27	16	340	12	1.5783	64.4
28	16	600	12	1.5783	113.6
29	16	790	12	1.5783	149.6
30	16	760	156	1.5783	1871.3
31	16	1200	156	1.5783	2954.6
32	16	1200	156	1.5783	2954.6
33	16	1200	156	1.5783	2954.6
34	16	760	156	1.5783	1871.3
35	16	630	12	1.5783	119.3
36	16	1200	12	1.5783	227.3
37	16	630	12	1.5783	119.3
38	16	630	12	1.5783	119.3
39	16	1200	12	1.5783	227.3
40	16	630	12	1.5783	119.3
41	16	1090	42	1.5783	722.6
42	16	1200	42	1.5783	795.5
43	16	1090	42	1.5783	722.6
44	12	1090	52	0.8878	503.2
45	12	1200	52	0.8878	554.0
46	12	1090	52	0.8878	503.2
47	12	600	149	0.8878	793.7
48	12	600	140	0.8878	745.8
49	12	600	9	0.8878	47.9
50	12	600	9	0.8878	47.9
51	12	600	149	0.8878	793.7
52	16	150	238	1.5783	563.5
53	16	735	8	1.5783	92.8
54	16	1200	8	1.5783	151.5
55	16	1200	8	1.5783	151.5
56	16	1200	2	1.5783	37.9
57	16	735	8	1.5783	92.8
58	12	52	4590	0.8878	2119.0
59	12	52	7950	0.8878	3670.2
60	16	230	8	1.5783	29.0
61	16	230	8	1.5783	29.0
62	16	150	20	1.5783	47.4
63	16	210	10	1.5783	33.1
64	16	130	4	1.5783	8.2
65	16	150	4	1.5783	9.5
66	10	22	238	0.6165	32.3
TOTAL PLATFORM REINFORCEMENT					64960.0

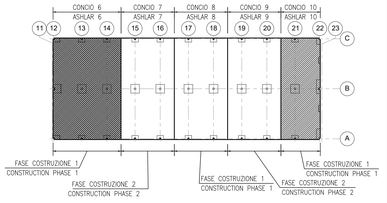
ARMATURA AGGIUNTIVA/ADDITIONAL REINFORCEMENT
SCALA/SCALE 1:200
FERRI CORRENTI SUPERIORI/TOP CURRENT REBAR



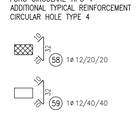
ARMATURA AGGIUNTIVA/ADDITIONAL REINFORCEMENT
SCALA/SCALE 1:200
FERRI A TAGLIO E RINFORZI PER FORI/CUT REBAR AND HOLE REINFORCEMENT



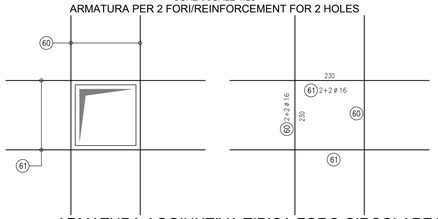
PLATEA LATO EST - PIANTA CHIAVE
PLATFORM ON THE EAST SIDE - KEY MAP
SCALA/SCALE 1:1000



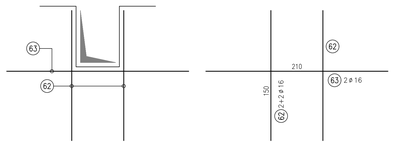
ARMATURA AGGIUNTIVA TIPICA
FORO CIRCOLARE TIPO 4
ADDITIONAL TYPICAL REINFORCEMENT
CIRCULAR HOLE TYPE 4



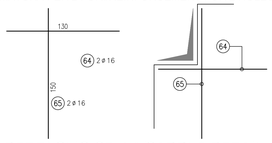
ARMATURA AGGIUNTIVA FORO TIPO 2
ADDITIONAL HOLE REINFORCEMENT TYPE 2
SCALA/SCALE 1:25
ARMATURA PER 2 FORI/REINFORCEMENT FOR 2 HOLES



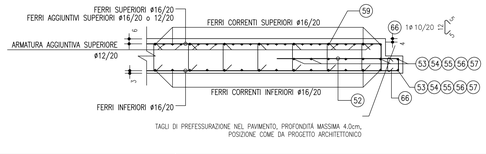
ARMATURA AGGIUNTIVA FORO TIPO 1 E TIPO 3
ADDITIONAL HOLE REINFORCEMENT TYPE 1 AND TYPE 3
SCALA/SCALE 1:25
ARMATURA PER 5 FORI/REINFORCEMENT FOR 5 HOLES



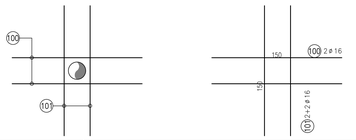
ARMATURA AGGIUNTIVA FORO TIPO 4
ADDITIONAL HOLE REINFORCEMENT TYPE 4
SCALA/SCALE 1:25
ARMATURA PER 2 FORI/REINFORCEMENT FOR 2 HOLES



DETTAGLIO SELLA/SADDLE DETAIL
SCALA/SCALE 1:25



ARMATURA AGGIUNTIVA TIPICA FORO CIRCOLARE TIPO 4
ADDITIONAL TIPICAL REINFORCEMENT CIRCULAR HOLE TYPE 4
SCALA/SCALE 1:25
ARMATURA TIPICA/TYPICAL REINFORCEMENT



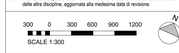
CALCESTRUZZO – CONCRETE	
LEAN CONCRETE / MAGRONE	
– RESISTENCE CLASS / CLASSE DI RESISTENZA	: C12/15
SLAB / PLATEA	
– RESISTENCE CLASS / CLASSE DI RESISTENZA	: C30/37
– EXPOZSURE CLASS / CLASSE DI ESPOSIZIONE	: XC2
– MINIMUM CONCRETE COVER / COPRIFERRO MIN.	: c=40 mm
– SLUMP / CONSISTENZA	: S4
– MAX AGGREGATE SIZE / MAX. AGGREGATO	: 25 mm
REBAR / ACCIAIO PER C.A.	
– REBARS CLASS / TIPO DI ACCIAIO	: B450C

General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale this drawing. All dimensions indicated are in centimeters unless otherwise noted. Validate all measurements on site.
3. All grand and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordination between shop drawings.
7. Final ceiling coordinated with architects' interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni di ogni arredo e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del contraente fornire indicazioni di montaggio accurate.
7. La quota degli arredi è fornita solo a titolo indicativo e potrebbe subire modifiche.
8. Il contraente deve coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.



Key Plan

P02	Issued for Construction	CRL/FB/HM/EG | 03/02/2023
P01	Issued for Compass Review	CRL/FB/HM/EG | 16/12/2022
Details		

Client

COMPASS Datacenters

Architectural / Civil / Structural

MAESTRALE

Lead Consultant / MEP Designer

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www.bw-engineering.com

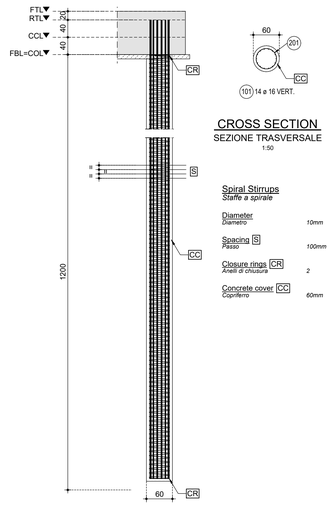
Project Title
MXP I-I

Drawing Title
Foundations
Raft Foundation Reinforcement and Details
Sector DH-1&DH-2
Part 2/2

Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**
Project Number	**Scale @ A0** / **Revision**
P10424	**1:200/25** / **P02**

Drawing Number
SB506



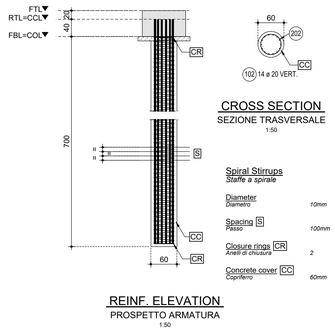
CROSS SECTION
SEZIONE TRASVERSALE
1:50

Spiral Stirrups
Staffe a spirale

Diameter *Diametro*		10mm
Spacing S *Passo*		100mm
Closure rings CR *Anelli di chiusura*		2
Concrete cover CC *Copriferro*		60mm

REINF. ELEVATION
PROSPETTO ARMATURA
1:50

PIC1 - d=60 L=1200



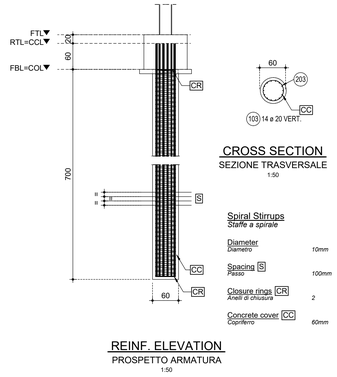
CROSS SECTION
SEZIONE TRASVERSALE
1:50

Spiral Stirrups
Staffe a spirale

Diameter *Diametro*		10mm
Spacing S *Passo*		100mm
Closure rings CR *Anelli di chiusura*		2
Concrete cover CC *Copriferro*		60mm

REINF. ELEVATION
PROSPETTO ARMATURA
1:50

PIC2 - d=60 L=700



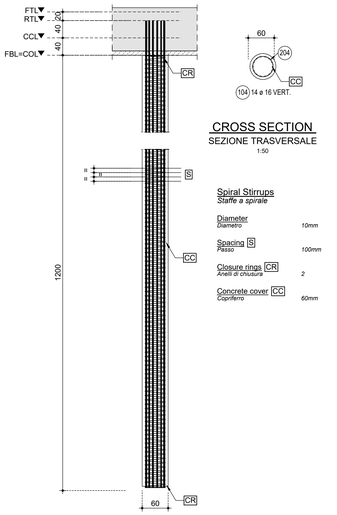
CROSS SECTION
SEZIONE TRASVERSALE
1:50

Spiral Stirrups
Staffe a spirale

Diameter *Diametro*		10mm
Spacing S *Passo*		100mm
Closure rings CR *Anelli di chiusura*		2
Concrete cover CC *Copriferro*		60mm

REINF. ELEVATION
PROSPETTO ARMATURA
1:50

PIC3 - d=60 L=700



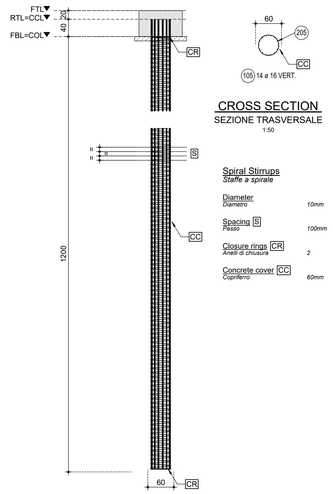
CROSS SECTION
SEZIONE TRASVERSALE
1:50

Spiral Stirrups
Staffe a spirale

Diameter *Diametro*		10mm
Spacing S *Passo*		100mm
Closure rings CR *Anelli di chiusura*		2
Concrete cover CC *Copriferro*		60mm

REINF. ELEVATION
PROSPETTO ARMATURA
1:50

PIC4 - d=60 L=1200



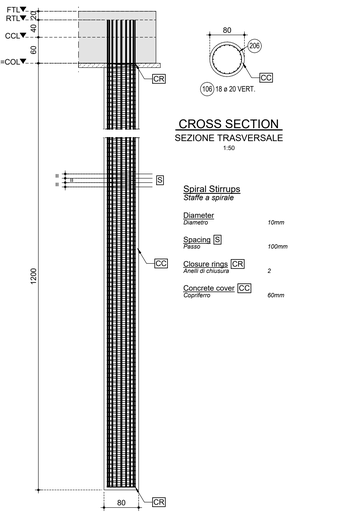
CROSS SECTION
SEZIONE TRASVERSALE
1:50

Spiral Stirrups
Staffe a spirale

Diameter *Diametro*		10mm
Spacing S *Passo*		100mm
Closure rings CR *Anelli di chiusura*		2
Concrete cover CC *Copriferro*		60mm

REINF. ELEVATION
PROSPETTO ARMATURA
1:50

PIC5 - d=60 L=1200



CROSS SECTION
SEZIONE TRASVERSALE
1:50

Spiral Stirrups
Staffe a spirale

Diameter *Diametro*		10mm
Spacing S *Passo*		100mm
Closure rings CR *Anelli di chiusura*		2
Concrete cover CC *Copriferro*		60mm

REINF. ELEVATION
PROSPETTO ARMATURA
1:50

PIC6 - d=80 L=1200

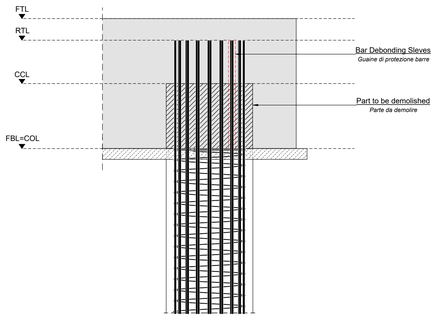
MATERIALS / *MATERIALI*

CONCRETE CLASS CLASSE CALCESTRUZZO		**C25/30** **SCC ***
AT UNSHORING AL DISARMO	*Rck* ≥	2,5 *kN/cm²*
AT 28 DAYS A 28 GIORNI	*Rck* ≥	3,0 *kN/cm²*
REBARS CLASS TIPO ACCIAIO		**B 450 C**

*** SCC**= Self-consolidating concrete / *cls autocompattante*

NOTE (rif. UNI 11104:2016 / UNI EN 206-1)

EXPOSURE CLASS CLASSE DI ESPOSIZIONE	XC 2
MINIMUM CONCRETE COVER COPRIFERRO MINIMO	60 mm
CONCRETE SLUMP CONSISTENZA CALCESTRUZZO	S3
MAX AGGREGATE SIZE DIMENSIONE MASSIMA INERTE	25 mm



PILE HEAD DETAIL
DETTAGLIO TESTA PALO
1:20

Bar Debonding Sleves
Guaine di protezione barre

It can be used polyethylene cylindrical shaped tubes that provide a protective sleeve around the rebar. They prevent concrete from binding to the rebar, avoiding the damage of reinforcement during the demolition process.

Possono essere utilizzate guaine in polietilene come protezione delle barre di armatura. In modo da prevenire l'ancoraggio del calcestruzzo alla barra, evitando il danneggiamento delle armature durante il processo di demolizione.

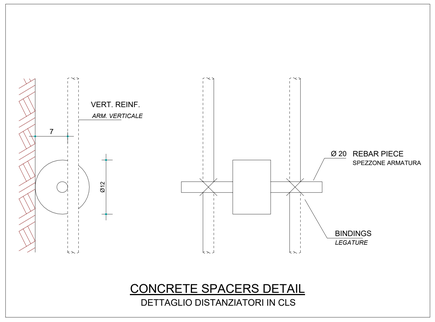
Part to be demolished
Parte da demolire

If the cut off level is lower than requested, install a cylindrical formwork around the pile shape before casting the lean concrete, to avoid the filling of the body of the pile.
The foundation concrete will fill the cylindrical formwork.

Nel caso in cui la quota di scapitozzatura risulti più profonda di quanto indicato, prevedere un collare ferma getto attorno ai pali durante la realizzazione del magrone, per evitare che sia riempita la zona di fusto del palo.
Il calcestruzzo del plinto andrà quindi a colmare anche il collare.

BAR SCHEDULE - BENDING SHAPE
DISTINTA ARMATURE

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
101	14	16	12.74	1274	178.36	281.81
102	14	20	7.34	734	102.76	253.82
103	14	20	7.54	754	105.56	260.73
104	14	16	12.74	1274	178.36	281.81
105	14	16	12.34	1234	172.76	272.96
106	18	20	12.94	1294	232.92	575.31
201	1	10	ml		185.67	114.56
202	1	10	ml		110.14	67.96
203	1	10	ml		110.14	67.96
204	1	10	ml		185.67	114.56
205	1	10	ml		185.67	114.56
206	1	10	ml		262.73	162.10



CONCRETE SPACERS DETAIL
DETTAGLIO DISTANZIATORI IN CLS

LEVELS LEGEND
LEGENDA LIVELLI

FTL	FOUNDATION TOP LEVEL / LIVELLO SUPERIORE FONDAZIONE
RTL	REINFORCEMENT TOP LEVEL / LIVELLO SUPERIORE ARMATURA
CCL	CONCRETE CASTING LEVEL / LIVELLO GETTO CALCESTUZZO
FBL	FOUNDATION BOTTOM LEVEL / LIVELLO INFERIORE FONDAZIONE
COL	CUT OFF LEVEL / LIVELLO TAGLIO E DEMOLIZIONE

General Notes

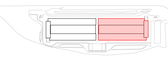
1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final installation/construction shop drawings.
7. Final ceiling coordinated with the interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Verificare tutte le misure in cantiere.
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del costruttore fornire indicazioni di montaggio accurate.
7. La quota degli elementi finiti dipendono da eventuali modifiche a pacchetti di copertura.
8. Il costruttore deve coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

50 0 50 100 150 200
SCALE 1:50

Key Plan



Rev	Details	By / Chkd / App	Date
P02	Issued for Construction	DAP/FBH/MEG	03/02/2023
P01	Issued for Compass Review	DAP/FBH/MEG	16/12/2022

Client

COMPASS ARTHURIAN

Architectural / Civil

STRONGING ARIATTA ENGINEERING

MAESTRALE

Lead Consultant / MEP Designer

Black & White Engineering
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Al Fahidi Street
Dubai Harbour
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

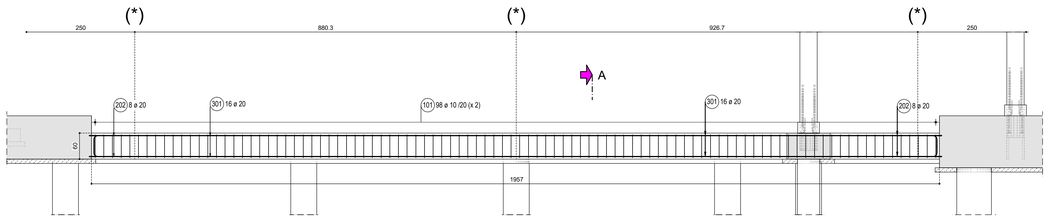
Drawing Title
Foundations
Pile Reinforcement and Details
PIC1 to PIC6

Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**
Project Number	Scale @ A0 / Revision
P10424	**1:50** / **P02**

Drawing Number
SB507

A0 - Do not scale



BEAM GMB.01

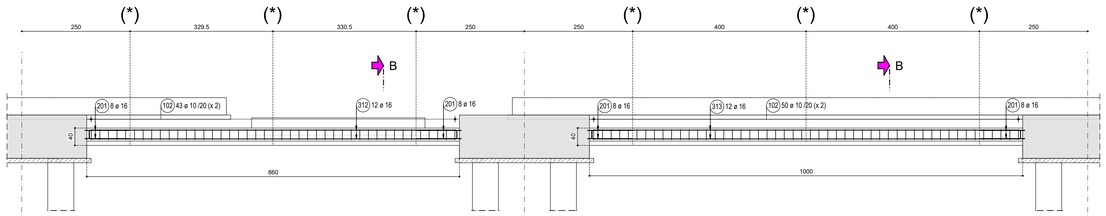
SECTION / *SEZIONE A*
1:50

SECTION / *SEZIONE B*
1:50

LEGEND / *LEGENDA* :

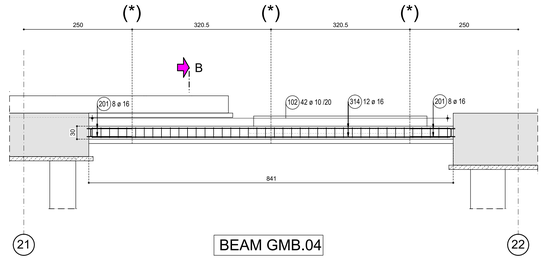
(*) CONNECTIONS TO PRECAST ELEMENTS
- SEE DRAWING SB201 TO VERIFY THE ACTUAL DIMENSIONS/

CONNESSIONI CON ELLEMENTI PREFABB.
- VEDERE LA TAVOLA SB201 DEL PREFABBRICATORE PER LE DIMENSIONI EFFETTIVE

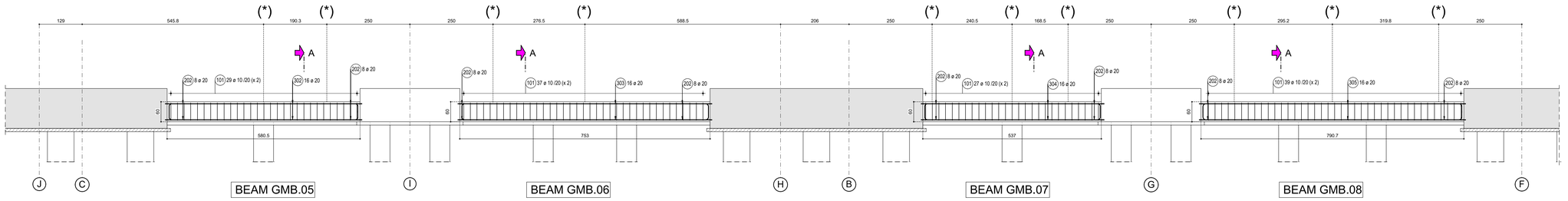


BEAM GMB.02

BEAM GMB.03



BEAM GMB.04



BEAM GMB.05

BEAM GMB.06

BEAM GMB.07

BEAM GMB.08

BEAM GMB.01

Mark Pos.	Pcs Pezzi	ø [mm]	Single length Lungh. singola [m]	Dimensioned bending shape Misure sagomature (not to scale / non in scala)	Total length Lungh. totale [m]	Mass Peso [kg]
101	196	10	2.70	34 / 69. / 20	529.20	326.52
202	16	20	1.20	L0 120	19.20	47.42
301	32	20	10.55	20 L0 1025 20	337.60	833.87

Total Mass / *Peso totale* [kg] : 1207.81

BEAM GMB.02

Mark Pos.	Pcs Pezzi	ø [mm]	Single length Lungh. singola [m]	Dimensioned bending shape Misure sagomature (not to scale / non in scala)	Total length Lungh. totale [m]	Mass Peso [kg]
102	43	10	2.00	24 / 64 / 20	86.00	53.06
201	16	16	1.05	L0 105	16.80	26.54
312	12	16	8.90	L0 850 20	106.80	168.74

Total Mass / *Peso totale* [kg] : 248.34

BEAM GMB.03

Mark Pos.	Pcs Pezzi	ø [mm]	Single length Lungh. singola [m]	Dimensioned bending shape Misure sagomature (not to scale / non in scala)	Total length Lungh. totale [m]	Mass Peso [kg]
102	50	10	2.00	24 / 64 / 20	100.00	61.70
201	16	16	1.05	L0 105	16.80	26.54
313	12	16	10.31	L0 991 20	123.72	195.48

Total Mass / *Peso totale* [kg] : 283.72

BEAM GMB.04

Mark Pos.	Pcs Pezzi	ø [mm]	Single length Lungh. singola [m]	Dimensioned bending shape Misure sagomature (not to scale / non in scala)	Total length Lungh. totale [m]	Mass Peso [kg]
102	42	10	2.00	24 / 64 / 20	84.00	51.83
201	16	16	1.05	L0 105	16.80	26.54
314	12	16	8.73	L0 833 20	104.76	165.52

Total Mass / *Peso totale* [kg] : 243.89

BEAM GMB.05

Mark Pos.	Pcs Pezzi	ø [mm]	Single length Lungh. singola [m]	Dimensioned bending shape Misure sagomature (not to scale / non in scala)	Total length Lungh. totale [m]	Mass Peso [kg]
101	58	10	2.71	34 / 69. / 20	157.18	96.98
202	16	20	1.20	L0 120	19.20	47.42
302	16	20	6.26	20 L0 570 20	100.16	247.40

Total Mass / *Peso totale* [kg] : 391.80

BEAM GMB.06

Mark Pos.	Pcs Pezzi	ø [mm]	Single length Lungh. singola [m]	Dimensioned bending shape Misure sagomature (not to scale / non in scala)	Total length Lungh. totale [m]	Mass Peso [kg]
101	74	10	2.70	34 / 69. / 20	200.54	123.73
202	16	20	1.20	L0 120	19.20	47.42
303	16	20	7.02	20 L0 744 20	127.84	315.76

Total Mass / *Peso totale* [kg] : 486.91

BEAM GMB.07

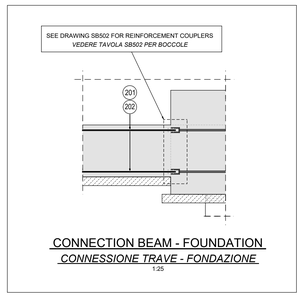
Mark Pos.	Pcs Pezzi	ø [mm]	Single length Lungh. singola [m]	Dimensioned bending shape Misure sagomature (not to scale / non in scala)	Total length Lungh. totale [m]	Mass Peso [kg]
101	54	10	2.70	34 / 69. / 20	145.80	89.96
202	16	20	1.20	L0 120	19.20	47.42
304	16	20	5.90	30 L0 530 20	94.40	233.17

Total Mass / *Peso totale* [kg] : 370.55

BEAM GMB.08

Mark Pos.	Pcs Pezzi	ø [mm]	Single length Lungh. singola [m]	Dimensioned bending shape Misure sagomature (not to scale / non in scala)	Total length Lungh. totale [m]	Mass Peso [kg]
101	78	10	2.70	34 / 69. / 20	211.38	130.42
202	16	20	1.20	L0 120	19.20	47.42
305	16	20	7.90	20 L0 781 20	133.92	330.78

Total Mass / *Peso totale* [kg] : 508.62



CONNECTION BEAM - FOUNDATION
CONNESSIONE TRAVE - FONDAZIONE
1:25

MATERIALS / *MATERIALI*

CONCRETE CLASS CLASSE CALCESTRUZZO		**C30/37**	
AT UNSHORING AL DISARMO	*Rck* ≥	2,5	*kN/cm²*
AT 28 DAYS A GIORNI	*Rck* ≥	3,7	*kN/cm²*
REBARS CLASS TIPO ACCIAIO		**B 450 C**	

NOTE (rif. UNI 11104:2016 / UNI EN 206-1)

EXPOSURE CLASS CLASSE DI ESPOSIZIONE	XC 2 (XF 3)
MINIMUM CONCRETE COVER COPRIFERRO MINIMO	30 mm
CONCRETE SLUMP CONSISTENZA CALCESTRUZZO	S4
MAX AGGREGATE SIZE DIMENSIONE MASSIMA INERTE	25 mm

General Notes

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8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
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8. Il costruttore deve coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

50 0 50 100 150 200
SCALE 1:50

Key Plan

Rev	Description	By / Chkd / App	Date
P02	Issued for Construction	DAP/FBH/MEG	03/02/2023
P01	Issued for Compass Review	DAP/FBH/MEG	16/12/2022

Client

COMPASS DEVELOPMENTS

Architectural / Civil

STRUCTURE ARKITA MAESTRALE

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
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PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Foundations
Ground Beams Reinforcement
GMB.01 to GMB.08

Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**

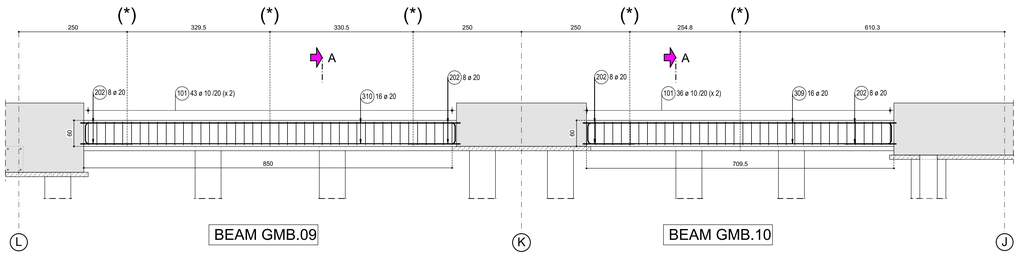
Project Number	Scale @ A0	Revision
P10424	**1:50**	**P02**

Drawing Number
SB508

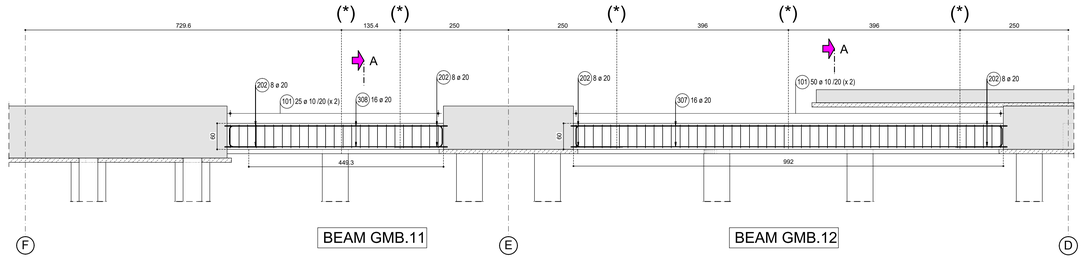
A0 - Do not scale

LEGEND / *LEGENDA* :

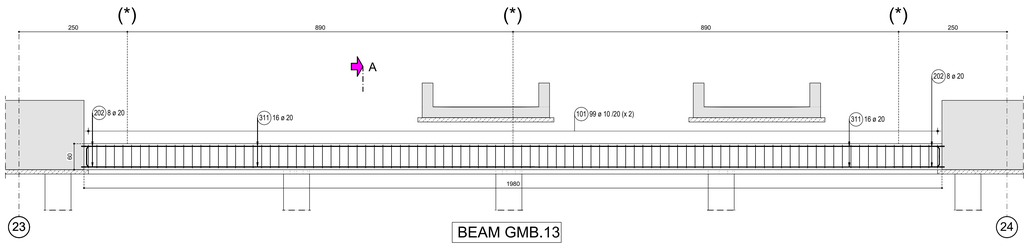
(*) CONNECTIONS TO PRECAST ELEMENTS
- SEE DRAWING SB201 TO VERIFY THE ACTUAL DIMENSIONS/
CONNESSIONI CON ELLEMENTI PREFABB.
- *VEDERE LA TAVOLA SB220 DEL PREFABBRICATORE PER LE DIMENSIONI EFFETTIVE*



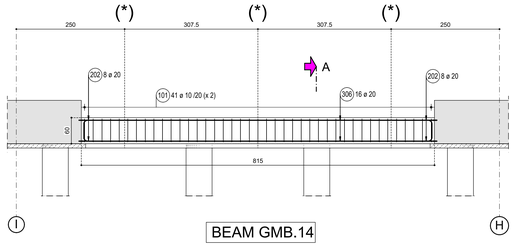
BEAM GMB.09 BEAM GMB.10



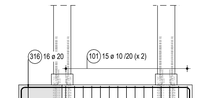
BEAM GMB.11 BEAM GMB.12



BEAM GMB.13



BEAM GMB.14



BEAM GMB.15

BEAM GMB.16

BEAM GMB.09

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
101	86	10	2.70	34 69	232.20	143.27
202	16	20	1.20	L0 120	19.20	47.42
310	16	20	9.15	30 855 30	146.40	361.61

Total Mass / *Peso totale* [kg] : 552.30

BEAM GMB.10

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
101	72	10	2.70	34 69	195.12	120.39
202	16	20	1.20	L0 120	19.20	47.42
309	16	20	7.15	30 655 30	121.28	299.56

Total Mass / *Peso totale* [kg] : 467.37

BEAM GMB.11

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
101	50	10	2.70	34 65	135.50	83.60
202	16	20	1.20	L0 120	19.20	47.42
308	16	20	5.00	30 440 30	87.68	216.57

Total Mass / *Peso totale* [kg] : 347.59

BEAM GMB.12

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
101	100	10	2.70	34 69	270.00	166.59
202	16	20	1.20	L0 120	19.20	47.42
307	16	20	10.45	30 985 30	167.20	412.98

Total Mass / *Peso totale* [kg] : 626.99

BEAM GMB.13

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
101	198	10	2.70	34 69	534.60	329.85
202	16	20	1.20	L0 120	19.20	47.42
311	32	20	10.65	1035 30	340.80	841.78

Total Mass / *Peso totale* [kg] : 1219.05

BEAM GMB.14

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
101	82	10	2.70	34 69	221.40	136.60
202	16	20	1.20	L0 120	19.20	47.42
306	16	20	8.65	30 805 30	138.40	341.85

Total Mass / *Peso totale* [kg] : 525.87

BEAM GMB.15

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
101	30	10	2.71	34 65	81.30	50.16
316	16	20	4.46	30 390 30	71.36	176.26

Total Mass / *Peso totale* [kg] : 226.42

BEAM GMB.16

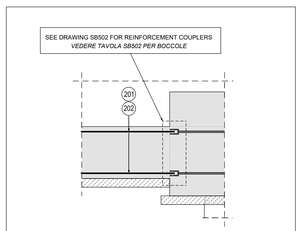
Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
101	32	10	2.71	34 69	86.72	53.51
315	16	20	4.66	30 410 30	74.56	184.16

Total Mass / *Peso totale* [kg] : 237.67

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
1	56	12	2.06	18 73	115.36	102.44
2	40	12	3.67	18 174	146.80	130.36
3	40	12	3.65	17 174	146.00	129.65
4	24	12	3.64	17 174	87.36	77.58

Total Mass / *Peso totale* [kg] : 440.03

LOADING BAY / *BAIA DI CARICO*



CONNECTION BEAM - FOUNDATION
CONNESSIONE TRAVE - FONDAZIONE
1:25

General Notes

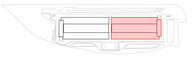
1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, sobelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni tra quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche a pacchetto di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

50 0 50 100 150 200
SCALE 1:50

Key Plan



NOTE :

1. For Beams GMB.15 and GMB.16 see connection details on with precast stairs on drawings SF107 and SF108 / Per le travi GMB.15 e GMB.16 vedere i dettagli di connessione con le scale prefabbricate sulle tavole SF107 e SF108

P02	Issued for Construction	DAF/FBH/MEG	03/02/2023
P01	Issued for Compass Review	DAF/FBH/MEG	16/12/2022
Rev	Details	By / Chkd / App	Date

Client

COMPASS Developments

Architectural / Civil

MAESTRALE

Lead Consultant / MEP Designer

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Dubai, UAE
PO Box 27753
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Foundations
Ground Beams Reinforcement
GMB.09 to GMB.16 - Loading Bay

Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	S5
Project Number	**Scale @ A0** / **Revision**
P10424	1:50 / P02

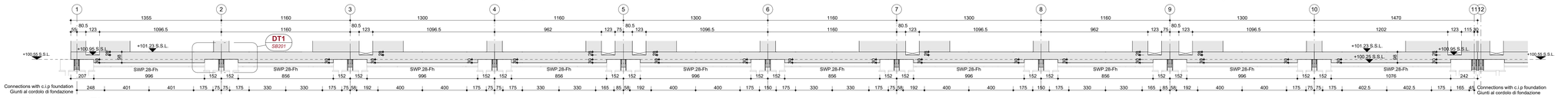
Drawing Number
SB509

MATERIALS / *MATERIALI*

CONCRETE CLASS / CLASSE CALCESTRUZZO		C30/37	
AT UNSHORING / AL DISARMO	*Rck* ≥	2.5	kN/cm²
AT 28 DAYS / A GIORNI	*Rck* ≥	3.7	kN/cm²
REBARS CLASS / TIPO ACCIAIO		B 450 C	

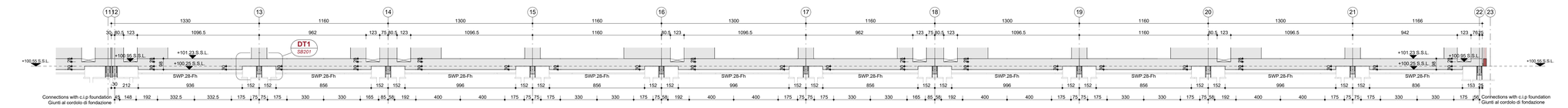
NOTE (rif. UNI 11104:2016 / UNI EN 206-1)

EXPOSURE CLASS / CLASSE DI ESPOSIZIONE	XC 2 (XF 3)
MINIMUM CONCRETE COVER / COPRIFERRO MINIMO	30 mm
CONCRETE SLUMP / CONSISTENZA CALCESTRUZZO	S4
MAX AGGREGATE SIZE / DIMENSIONE MASSIMA INERTE	25 mm



Elev. / Pro. - EL1 -

1 : 150



Elev. / Pro. - EL2 -

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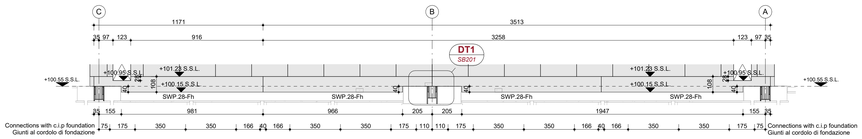

Elev. / Pro. - EL3 -

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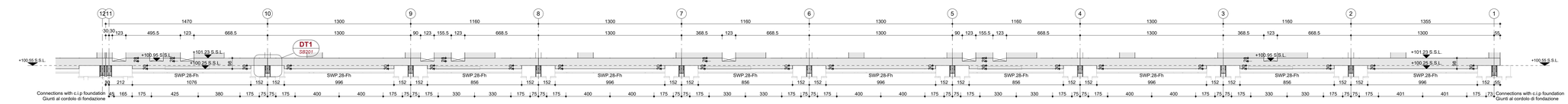

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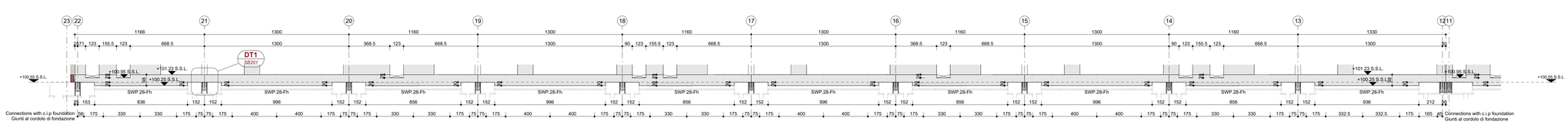

Elev. / Pro. - EL5 -

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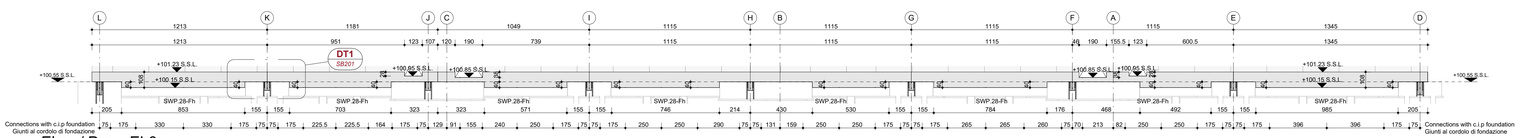
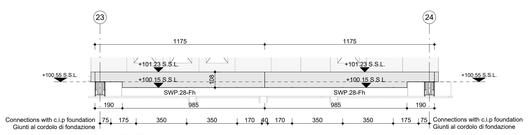


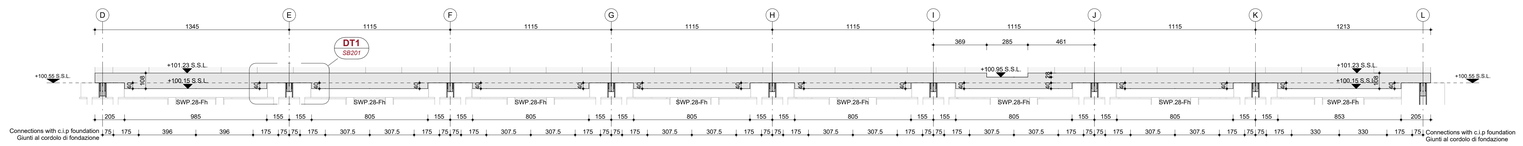
Elev. / Pro. - EL6 -

1 : 150



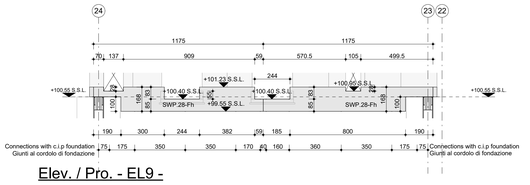
Elev. / Pro. - EL7 -

1 : 150



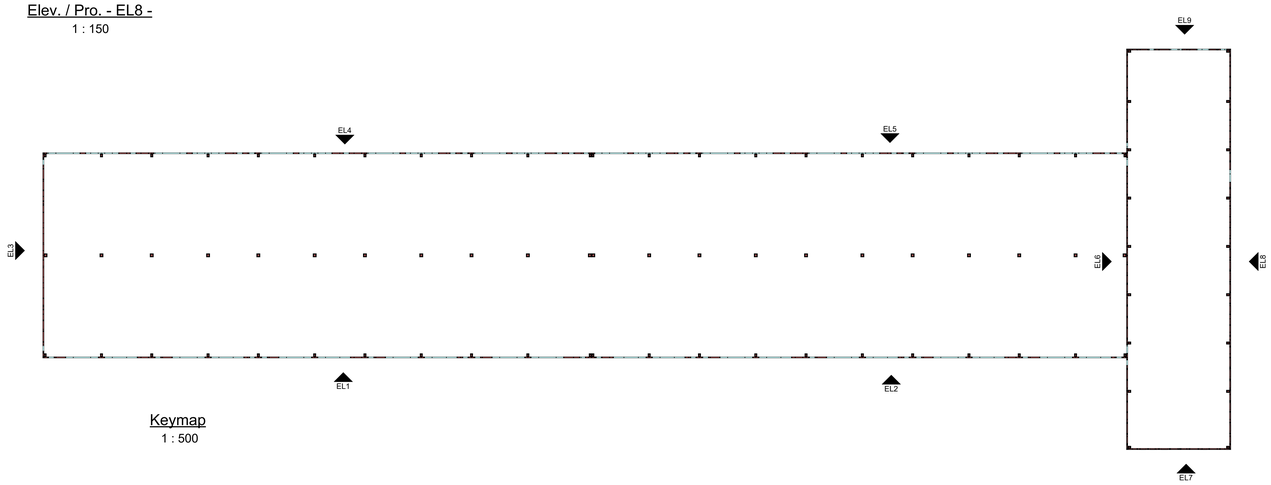
Elev. / Pro. - EL8 -

1 : 150



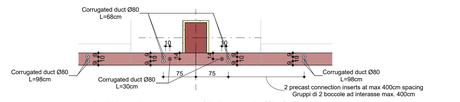
Elev. / Pro. - EL9 -

1 : 150



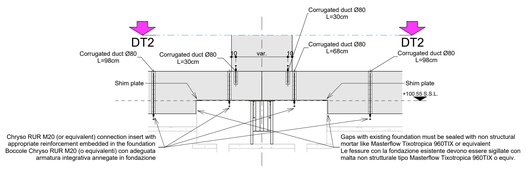
Keymap

1 : 500



DT2 - Top view / Vista dall'alto -

1 : 50


DT2
DT2
Corrugated duct Ø80
L=30cm
Corrugated duct Ø80
L=98cm
Shim plate
+100.55 S.S.L.
Chryso RUR M20 (or equivalent) connection insert with appropriate reinforcement embedded in the foundation
Boccole Chryso RUR M20 (o equivalenti) con adeguata armatura integrativa annegate in fondazione
Gaps with existing foundation must be sealed with non structural mortar like Masterflow Tixotropica 960TIX or equivalent
Le fessure con la fondazione esistente devono essere sigillate con malta non strutturale tipo Masterflow Tixotropica 960TIX o equiv.

N.B. Corrugated ducts must be filled with structural mortar like BASF Masterflow 928 or equivalent
N.B. Le guaine zigrinate vanno riempite a rifiuto con malta BASF Masterflow 928 o equivalente

Detail / Dett. - DT1 -

1 : 50

Ga Plans Legend / Legenda Carpenteria

- Cast in place concrete section element / Sezione elementi gettati in opera
- Cast in place concrete element view / Elementi gettati in opera in vista
- Precast concrete section element / Sezione elementi prefabbricati
- Precast concrete element view / Elementi prefabbricati in vista
- Lean concrete element view / Sezione elementi magrone
- BASF Masterflow 928 or equivalent structural mortar / malta strutturale
- F.F.L.: Finish Floor Level in meter / Quota Pav. Finito in metri
- S.S.L.: Structural Surface Level in meter / Quota Rustico Strutturale in metri

Precast concrete panels stratigraphy
Stratigrafia dei pannelli prefabbricati

SWP 28-Tv	P.r.c./C.a.v. 5cm Insulation/Isolamento 5cm (*) P.r.c./C.a.v. 18cm with lightening/ con alleggerimento (*) Vertical precast panel - Thermal break Pannelli pref. verticali a taglio termico	**SWP 28-Lv**	P.r.c./C.a.v. 6.5cm Lightening/Alleggerimento 15cm (*) P.r.c./C.a.v. 6.cm Vertical precast panel - Lightened Pannelli pref. verticali alleggeriti
SWP 28-Fh	P.r.c./C.a.v. 28cm Horizontal precast panel - Filled Pannelli pref. orizzontali pieni	**SWP 28-Lh**	P.r.c./C.a.v. 6.5cm Lightening/Alleggerimento 15cm (*) P.r.c./C.a.v. 6.cm Horizontal precast panel - Lightened Pannelli pref. orizzontali alleggeriti

(*) Insulation and lightening of the precast panels must locally have a fire reaction class of not less than A2-s1,d0. Please check the drawing FS102 for the vertical strips for which this requirement applies /
L'isolante e l'alleggerimento dei pannelli prefabbricati devono avere localmente una classe di reazione al fuoco uguale o superiore a A2-s1, d0. Si faccia riferimento alla tavola FS102 per le fasce verticali interessate.

General Notes

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3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final installation/construction shop drawings.
7. Final siting coordinated subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
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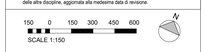
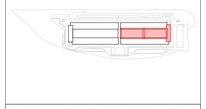


Key Plan



Precast details may be modified by precast manufacturer according to their own standards. Equal performance and quality shall be proven by design and calculations, duly stamped and signed by a Chartered Engineer and approved by Site Supervision /
I dettagli di collegamento delle strutture prefabbricate possono essere variati dal prefabbricatore secondo i suoi standard. Prestazioni e qualità equivalenti verranno garantite da dettagli e calcoli firmati da un ingegnere abilitato ed approvati dalla Direzione Lavori.

Rev	Details	By / Chkd / App	Date
P02	Issued for construction	CP/FBH/MEG	13/02/2022
P01	Issued for Compass Review	CP/FBH/MEG	16/12/2022

Client

COMPASS ARCHITECTS

Architectural / Civil / Structural

STRUCTURING ARIATTA

MAESTRALE

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1801
Marina Plaza
Dubai marina
P.O. Box 42193
Tel. +971 4 360 0228
www.bw-engineering.com

Project Title
MXP I-I

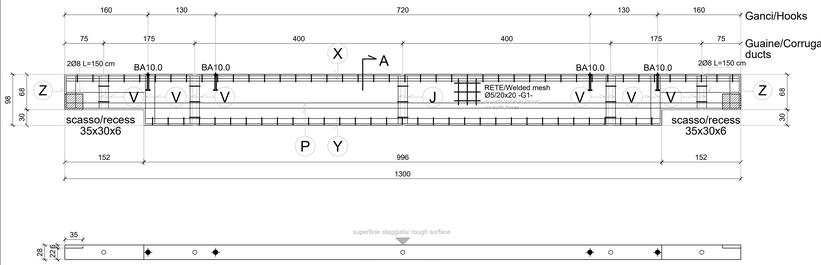
Drawing Title
Foundations
Precast Stem Walls Elevations

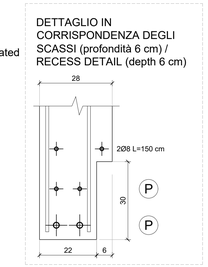
Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**
Project Number	**Scale @ A0** / **Revison**
P10424	**1:150** / **P02**

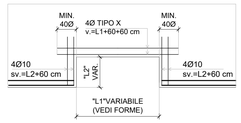
Drawing Number
SB201

A0 - Do not scale





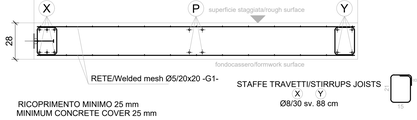
DETTAGLIO ARMATURA INTEGRATIVA PER TAMPONAMENTI SAGOMATI
DETAIL - ADDITIONAL REINFORCEMENT REBAR FOR SHAPED PANEL WALL



ARMATURA/REINFORCEMENT REBARS								
Bmax [m] (base)	H[m]	X	Y	V	Z	J	P
13.00	0.98	6Ø12	4Ø12	4Ø12	4Ø12	4Ø12	4Ø8

Armatura valida per/Reinforcement for:
SWP.28-Fh (Tipico doppio plinto h=98 cm)
(Tipical for double isolate foundation h=98 cm)

Sezione/Section A



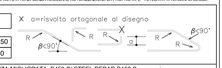
PARTICOLARE BARRE ANCORANTI/ ANCHOR BAR DETAIL

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	150 daN/cm²
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	400 daN/cm²

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E' TUTELATA. A TERMINI DI LEGGE.

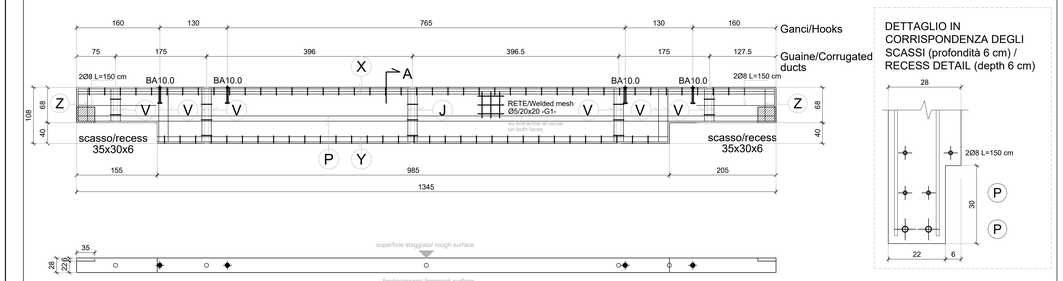
PIEGATURA E QUOTA FERRI — X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
Øs	8	10	12	14	16	18	20	22	26	30

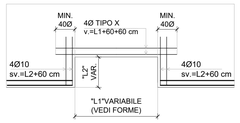


ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² (Agt) ≥ 7.5%
RETE ELETTROSALDATA B450 A/ Welded mesh B450 A
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² (Agt) ≥ 2.5%
ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm² fp(1)k ≥ 16700 daN/cm²

COMPASS — SCALA/ SCALE
TRAVE PORTA PANNELLO sp.28 cm — DATA



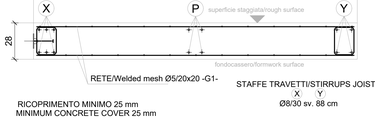
DETTAGLIO ARMATURA INTEGRATIVA PER TAMPONAMENTI SAGOMATI
DETAIL - ADDITIONAL REINFORCEMENT REBAR FOR SHAPED PANEL WALL



ARMATURA/REINFORCEMENT REBARS								
Bmax [m] (base)	H[m]	X	Y	V	Z	J	P
13.45	1.08	6Ø12	4Ø12	4Ø12	4Ø12	4Ø12	4Ø8

Armatura valida per/Reinforcement for:
SWP.28-Fh (Tipico doppio plinto h=108 cm)
(Tipical for double isolate foundation h=108 cm)

Sezione/Section A



PARTICOLARE BARRE ANCORANTI/ ANCHOR BAR DETAIL

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	150 daN/cm²
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	400 daN/cm²

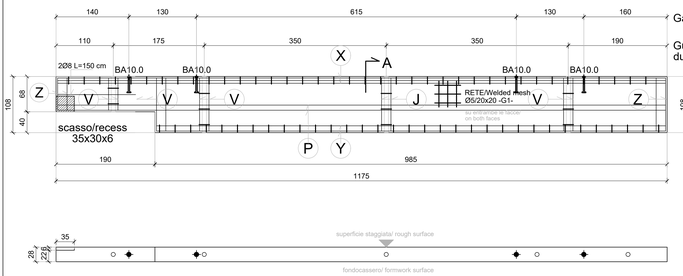
QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E' TUTELATA. A TERMINI DI LEGGE.

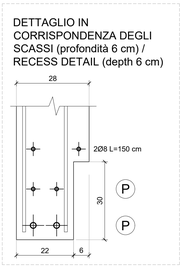
PIEGATURA E QUOTA FERRI — X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
Øs	8	10	12	14	16	18	20	22	26	30

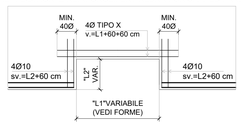
ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² (Agt) ≥ 7.5%
RETE ELETTROSALDATA B450 A/ Welded mesh B450 A
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² (Agt) ≥ 2.5%
ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm² fp(1)k ≥ 16700 daN/cm²

COMPASS — SCALA/ SCALE
TRAVE PORTA PANNELLO sp.28 cm — DATA





DETTAGLIO ARMATURA INTEGRATIVA PER TAMPONAMENTI SAGOMATI
DETAIL - ADDITIONAL REINFORCEMENT REBAR FOR SHAPED PANEL WALL



ARMATURA/REINFORCEMENT REBARS								
Bmax [m] (base)	H[m]	X	Y	V	Z	J	P
11.75	1.08	6Ø12	4Ø12	4Ø12	4Ø12	4Ø12	4Ø8

Armatura valida per/Reinforcement for:
SWP.28-Fh (Tipico singolo plinto h=108 cm)
(Tipical for double isolate foundation h=108 cm)

Sezione/Section A

PARTICOLARE BARRE ANCORANTI/ ANCHOR BAR DETAIL

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	150 daN/cm²
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	400 daN/cm²

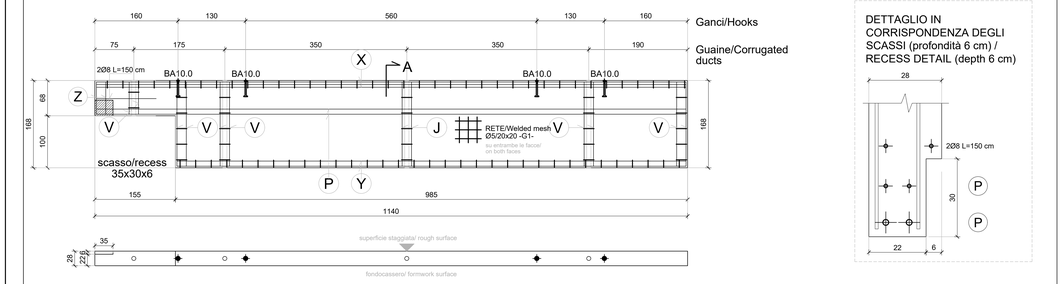
QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E' TUTELATA. A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI — X a=risvolto ortogonale al disegno

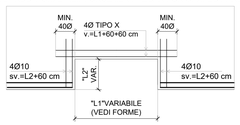
R =	16	20	30	35	40	72	80	88	130	150
Øs	8	10	12	14	16	18	20	22	26	30

ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² (Agt) ≥ 7.5%
RETE ELETTROSALDATA B450 A/ Welded mesh B450 A
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² (Agt) ≥ 2.5%
ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm² fp(1)k ≥ 16700 daN/cm²

COMPASS — SCALA/ SCALE
TRAVE PORTA PANNELLO sp.28 cm — DATA



DETTAGLIO ARMATURA INTEGRATIVA PER TAMPONAMENTI SAGOMATI
DETAIL - ADDITIONAL REINFORCEMENT REBAR FOR SHAPED PANEL WALL



ARMATURA/REINFORCEMENT REBARS								
Bmax [m] (base)	H[m]	X	Y	V	Z	J	P
11.40	1.68	6Ø12	4Ø12	4Ø12	4Ø12	4Ø12	4Ø8

Armatura valida per/Reinforcement for:
SWP.28-Fh (Tipico singolo plinto h=168 cm)
(Tipical for double isolate foundation h=168 cm)

Sezione/Section A

PARTICOLARE BARRE ANCORANTI/ ANCHOR BAR DETAIL

CALCESTRUZZO ALLO SCASSERO Rck ≥ CONCRETE AT FORMWORK STRIPPING Rck ≥	150 daN/cm²
CALCESTRUZZO IN ESERCIZIO Rck ≥ FULLY CURED CONCRETE RESISTANCE Rck ≥	400 daN/cm²

QUESTO DISEGNO NON PUO' ESSERE RIPRODOTTO, MODIFICATO O RESO NOTO A TERZI SENZA REGOLARE AUTORIZZAZIONE LA PROPRIETA' E' TUTELATA. A TERMINI DI LEGGE.

PIEGATURA E QUOTA FERRI — X a=risvolto ortogonale al disegno

R =	16	20	30	35	40	72	80	88	130	150
Øs	8	10	12	14	16	18	20	22	26	30

ACCIAIO ADERENZA MIGLIORATA B450 C/ STEEL REBAR B450 C
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² (Agt) ≥ 7.5%
RETE ELETTROSALDATA B450 A/ Welded mesh B450 A
fyk ≥ 4500 daN/cm² ftk ≥ 5400 daN/cm² (Agt) ≥ 2.5%
ACCIAIO ARMONICO STABILIZZATO/ SPRING STEEL
fptk ≥ 18600 daN/cm² fp(1)k ≥ 16700 daN/cm²

COMPASS — SCALA/ SCALE
TRAVE PORTA PANNELLO sp.28 cm — DATA

PER DETTAGLIO COLLEGAMENTO PANNELLO VEDERE TAVOLA SB201
PRECAST PANELS SUPPORT DETAIL IS AVAILABLE ON DRAWING NUMBERS SB201

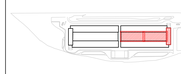
General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise noted. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final installation drawings showing penetrations.
7. Final setting coordinated with Mechanical/Electrical/Hydraulic design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Tutte le dimensioni delle attrezzature meccaniari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conosciendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsibilità del costruttore fornire indicazioni di montaggio accurate.
7. Le quote degli scassi sono fornite fino dipendono da eventuali modifiche ai pacchetti di copertura.
8. Il costruttore deve coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

Key Plan



P02	Issued for construction	CP/FB/HM/EG	13/02/2023
P01	Issued for Compass Review	CP/FB/HM/EG	16/12/2022
Rev.	Details	By / Chkd / App	Date

Client

COMPASS DEVELOPER

Architectural / Civil / Structural

MAESTRALE

STRETTO ENGINEERING

Lead Consultant / MEP Designer

Block & White Engineering
Office No. 1801
Marina Plaza
Dubai, UAE
PO Box 37783
Tel: +9714 365 2228
www.bw-engineering.com

Project Title
MXP I-I

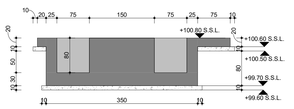
Drawing Title
Foundations
Precast Stem Walls - details and reinforcement

Project Status
ISSUED FOR CONSTRUCTION

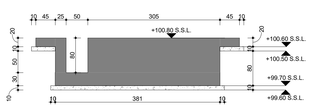
Discipline	Status Code
Structural	S5
Project Number	Scale @ A0 / Revision
P10424	- / P02

Drawing Number
SB510

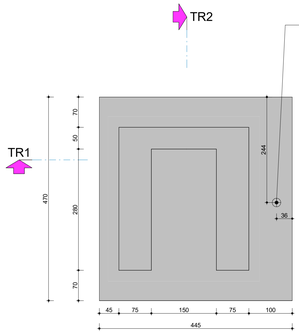
A0 - Do not scale



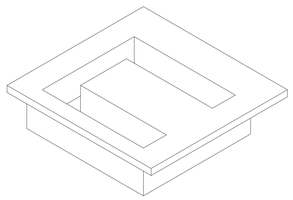
Sect. / Sez. - TR1 -
1 : 50



Sect. / Sez. - TR2 -
1 : 50

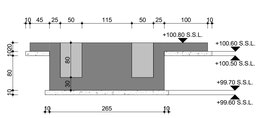


Top view / Vista dall'alto
1 : 50

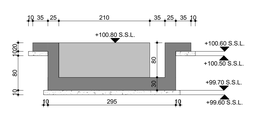


3D View / Vista 3D

TRAFO-1



Sect. / Sez. - TR3 -
1 : 50



Sect. / Sez. - TR4 -
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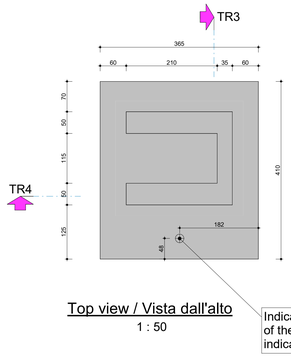
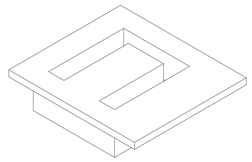
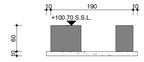


Top view / Vista dall'alto
1 : 50

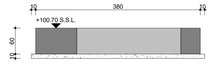


3D View / Vista 3D

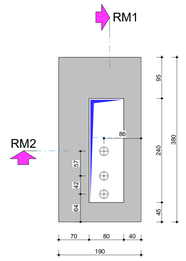
TRAFO-2



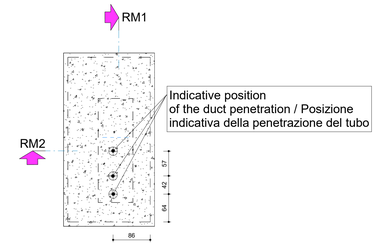
Sect. / Sez. - RM2 -
1 : 50



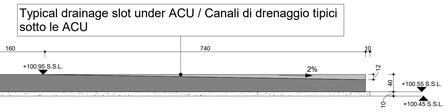
Sect. / Sez. - RM1 -
1 : 50



Top view / Vista dall'alto
1 : 50



RMU



Sect. / Sez. - AC1 -
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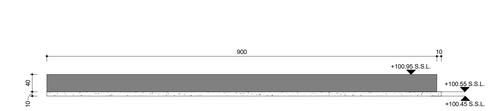

Sect. / Sez. - AC6 -
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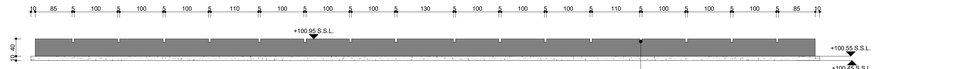
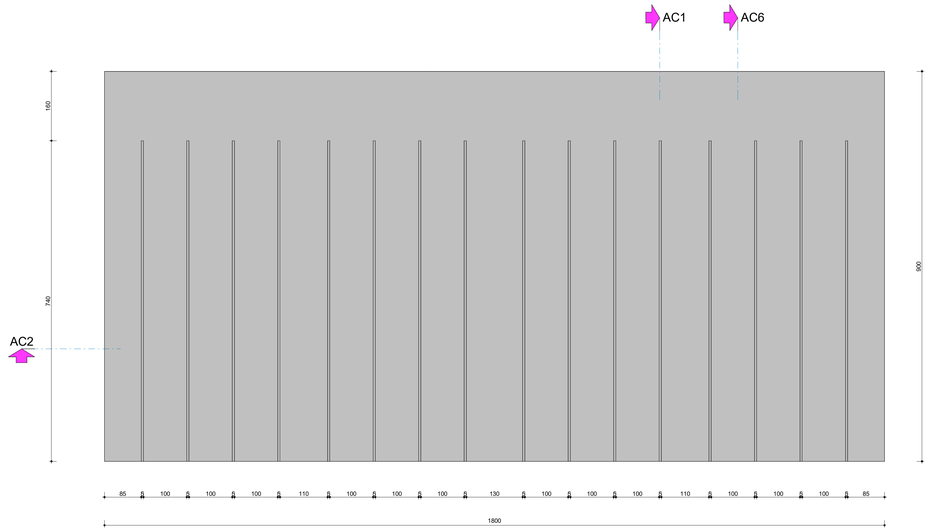
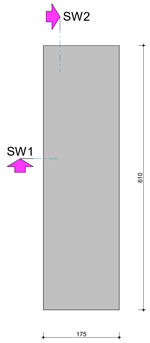


Sect. / Sez. - AC2 -
1 : 50

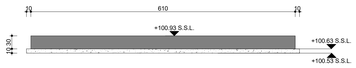


Top view / Vista dall'alto
1 : 50

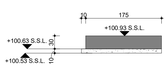
ACU



Top view / Vista dall'alto
1 : 50



Sect. / Sez. - SW2 -
1 : 50



Sect. / Sez. - SW1 -
1 : 50

LV SWITCHBOARD

General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Contractor to verify all measurements on site.
3. All symbols and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final ceiling configuration subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Tutte le apparecchiature e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'Ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche a pacchetti di copertura.
8. Il Committente deve fornire coordinate / passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

SCALE 1:50

Key Plan

NOTE:

1. For the position of the foundations refer to the sequence of drawings / Per la posizione delle fondazioni fare riferimento alla serie di tavole SB101 - SB105

2. For connection details of non-structural items, waterproofing and finishing layers, refer to Architectural drawing AE530 and MEP drawings series EQ901 - EQ906 / Per i dettagli delle connessioni degli elementi non strutturali, impermeabilizzazione e finiture, fare riferimento al disegno architettonico AE530 e alla serie di disegni impiantistici EQ901 - EQ906

3. For connection details of precast elements refer to drawing / Per i dettagli di connessione degli elementi prefabbricati fare riferimento alla tavola SB515

Rev	Details	By / Chkd / App	Date
P02	Issued for Construction	FCT/FBH/MEG	03/02/2003
P01	Issued for Compass Review	SB/FBH/MEG	16/12/2022

Client: COMPASS advanced

Architectural / Civil / Structural: MAESTRALE; STRUCTURING; ARIATTA

Lead Consultant / MEP Designer:

Black & White Engineering
Office No. 1901
Marina Plaza
Dubai marina
PO Box 27793
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title: MXP I-I

Drawing Title: Foundations
External Yard Equipment Foundations
Geometry
Part 1/2

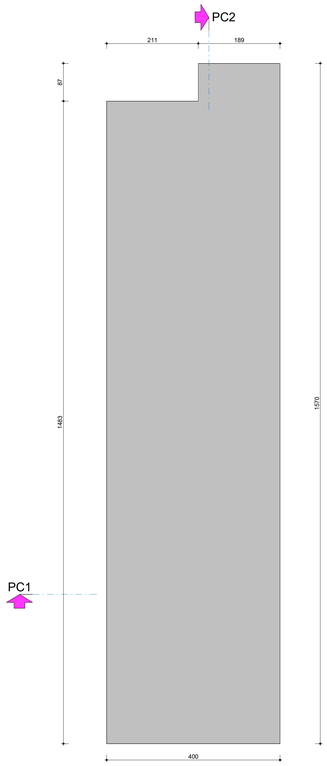
Project Status: **ISSUED FOR CONSTRUCTION**

Discipline	Status Code
Structural	S5

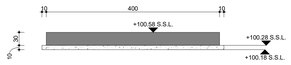
Project Number	Scale @ A0	Revision
P10424	1:50	P02

Drawing Number: **SB110**

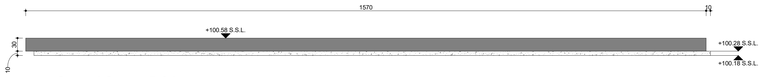
A0 - Do not scale



Top view / Vista dall'alto
1 : 50

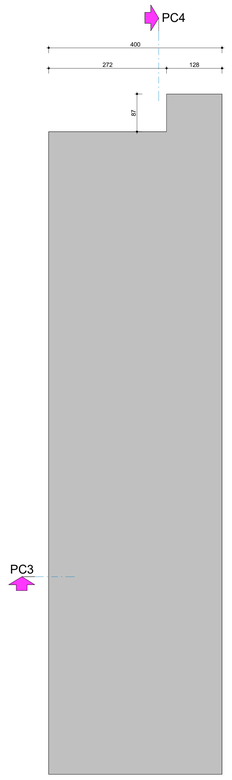


Sect. / Sez. - PC1 -
1 : 50

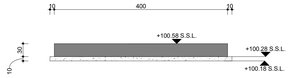


Sect. / Sez. - PC2 -
1 : 50

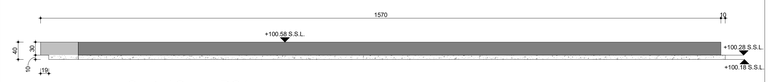
POWER CENTER-1



Top view / Vista dall'alto
1 : 50

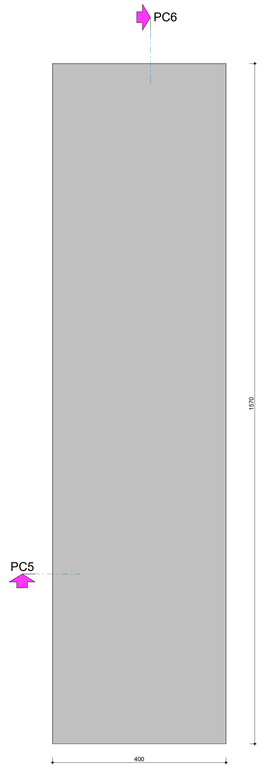


Sect. / Sez. - PC3 -
1 : 50

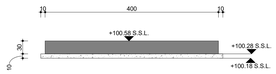


Sect. / Sez. - PC4 -
1 : 50

POWER CENTER-2



Top view / Vista dall'alto
1 : 50



Sect. / Sez. - PC5 -
1 : 50

Sect. / Sez. - PC6 -
1 : 50

POWER CENTER-3

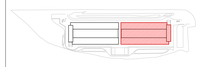
General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Verify all measurements on site.
3. All centre lines and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Tutte le linee centrali e delle macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche a pacchetti di copertura.
8. L'appaltatore deve coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

Key Plan



NOTE:

1. For the position of the foundations refer to the sequence of drawings / Per la posizione delle fondazioni fare riferimento alla serie di tavole SB101 - SB105

2. For connection details of non-structural items, waterproofing and finishing layers, refer to architectural drawing series AD530 and MEP drawing series EQ901 - EQ906 / Per i dettagli delle connessioni degli elementi non strutturali, e gli strati di impermeabilizzazione e finiture, fare riferimento al disegno architettonico AD530 e alla serie di disegni impiantistici EQ901 - EQ906

3. For connection details of precast elements refer to drawing / Per i dettagli di connessione degli elementi prefabbricati fare riferimento alla tavola SB515

P03	Issued for Construction	FC/TF/BH/MEG	22/02/2023
P02	Issued for Construction	FC/TF/BH/MEG	03/02/2023
P01	Issued for Compass Review	SB/FB/HMEG	16/12/2022
Rev	Details	By / Chkd / App	Date

Client

COMPASS
DATACENTERS

Architectural / Civil / Structural

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ARIETTA
MAESTRALE

Lead Consultant / MEP Designer

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www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Foundations
External Yard Equipment Foundations
Geometry
Part 2/2

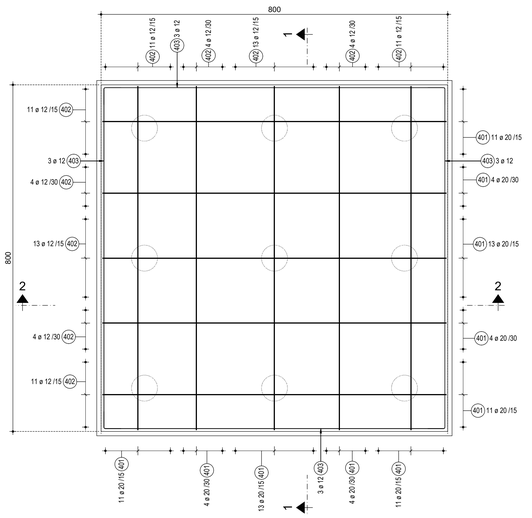
Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**

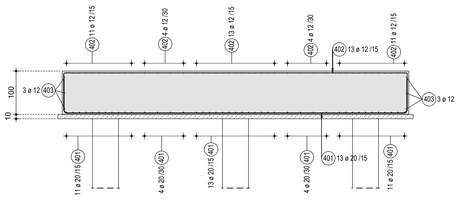
Project Number	Scale @ A0	Revision
P10424	**1:50**	**P03**

Drawing Number
SB111

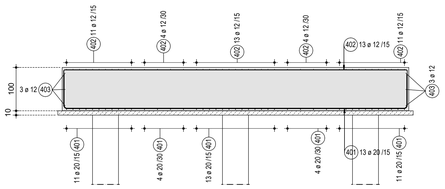
A0 - Do not scale



FOUNDATION PLAN / *PLANIMETRIA FONDAZIONE*
1:50



SECTION / *SEZIONE -1-*
1:50



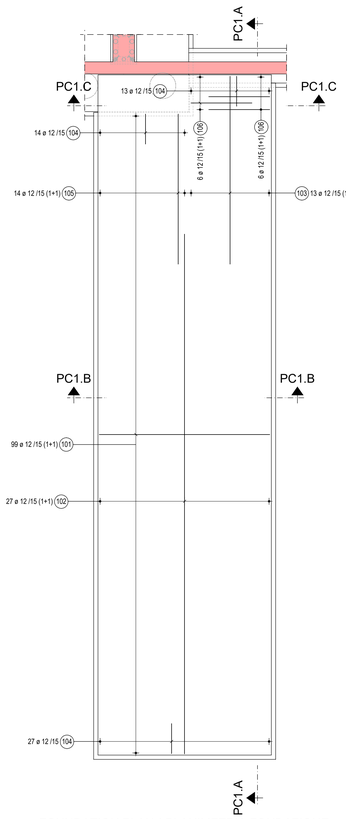
SECTION / *SEZIONE -2-*
1:50

BAR SCHEDULE - BENDING SHAPE
DISTINTA ARMATURE

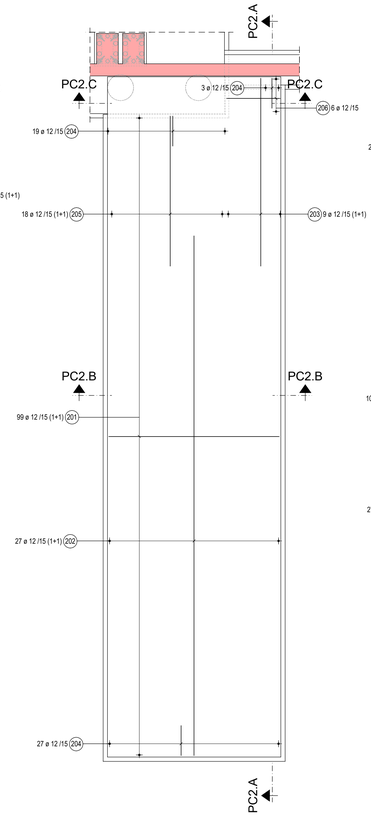
Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
401	86	20	9.54	794 / 100	820.44	2026.49
402	86	12	9.34	794 / 70	803.24	713.28
403	12	12	8.68	788 / 100	104.16	92.49

Total Mass / *Peso totale* [kg] : 2832.26

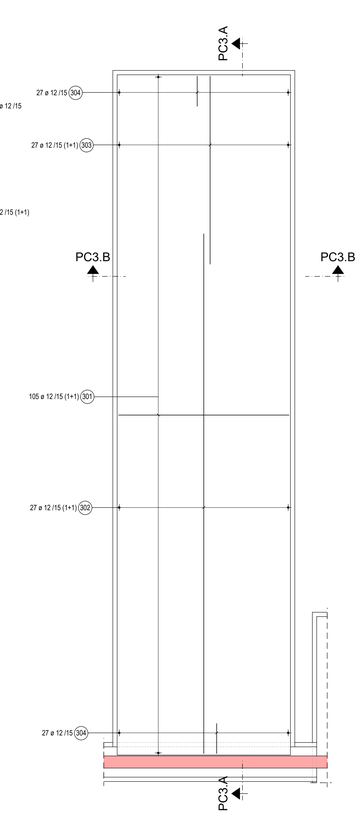
PAC.9 - 800x800x100



FOUNDATION PLAN / *PLANIMETRIA FONDAZIONE*
1:50

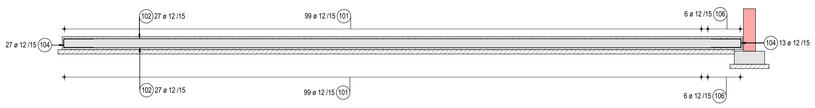


FOUNDATION PLAN / *PLANIMETRIA FONDAZIONE*
1:50



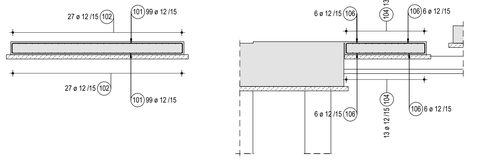
FOUNDATION PLAN / *PLANIMETRIA FONDAZIONE*
1:50

POWER CENTER 1



SECTION / *SEZIONE -PC1.A-*
1:50

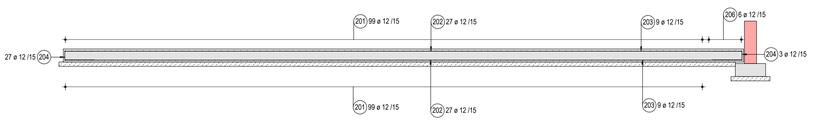
POWER CENTER 2



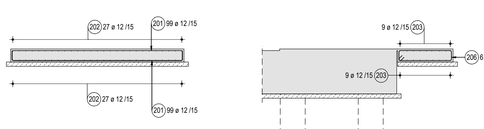
SECTION / *SEZIONE -PC1.B-*
1:50

POWER CENTER 3

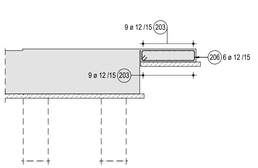
SECTION / *SEZIONE -PC1.C-*
1:50



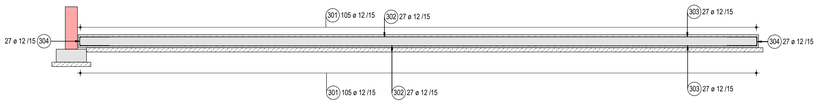
SECTION / *SEZIONE -PC2.A-*
1:50



SECTION / *SEZIONE -PC2.B-*
1:50



SECTION / *SEZIONE -PC2.C-*
1:50



SECTION / *SEZIONE -PC3.A-*
1:50

SECTION / *SEZIONE -PC3.B-*
1:50

BAR SCHEDULE - BENDING SHAPE
DISTINTA ARMATURE

POWER CENTER 1

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
101	198	12	4.40	394 / 23	871.20	773.63
102	54	12	12.00	1200	648.00	575.42
103	26	12	4.34	434	112.84	100.20
104	54	12	1.61	70 / 21	86.94	77.20
105	28	12	3.47	347	97.16	86.28
106	24	12	1.64	141 / 23	39.36	34.95

Total Mass / *Peso totale* [kg] : 1647.68

POWER CENTER 2

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
201	198	12	4.40	394 / 23	871.20	773.63
202	54	12	12.00	1200	648.00	575.42
203	18	12	4.34	434	78.12	69.37
204	49	12	1.61	70 / 21	78.89	70.05
205	36	12	3.47	347	124.92	110.93
206	6	12	3.21	122 / 26	19.26	17.10

Total Mass / *Peso totale* [kg] : 1616.50

POWER CENTER 3

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
301	210	12	4.40	394 / 23	924.00	820.51
302	54	12	12.00	1200	648.00	575.42
303	54	12	4.34	434	234.36	208.11
304	54	12	1.61	70 / 21	86.94	77.20

Total Mass / *Peso totale* [kg] : 1681.24

General Notes

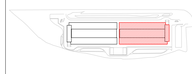
1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final installation coordination shop drawings.
7. Final ceiling coordinated by Interior/Exterior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Verificare tutte le misure in cantiere.
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del costruttore fornire indicazioni di montaggio accurate.
7. La quota degli elementi finiti dipendono da eventuali modifiche a pacchetti di copertura.
8. Il costruttore deve coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

50 0 50 100 150 200
SCALE 1:50

Key Plan



P03	Issued for Construction	DAP/FBH/MEG	20/02/2003
P02	Issued for Construction	DAP/FBH/MEG	15/02/2003
P01	Issued for Compass Review	DAP/FBH/MEG	16/12/2002
Rev	Details	By / Chkd / App	Data

Client
COMPASS datacenters

Architectural / Civil
MAESTRALE
STRUCTURE
ARIATTA ENGINEERING

Lead Consultant / MEP Designer
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Project Title
MXP I-I

Drawing Title
Foundations
External Yard Equipment Foundations Reinforcement
PAC.9 and POWER CENTER 1-3

Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**
Project Number	**Scale @ A0** / **Revision**
P10424	**1:50** / **P03**

Drawing Number
SB511

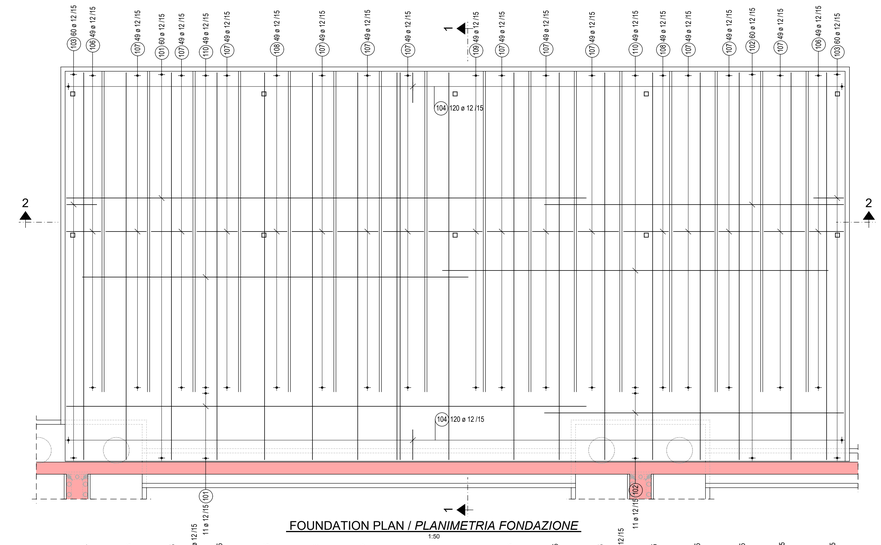
MATERIALS / *MATERIALI*

CONCRETE CLASS CLASSE CALCESTRUZZO		**C30/37**	
AT UNSHORING AL DISARMO	*Rck* ≥	2,5	kN/cm²
AT 28 DAYS A 28 GIORNI	*Rck* ≥	3,7	kN/cm²
REBARS CLASS TIPO ACCIAIO		**B 450 C**	

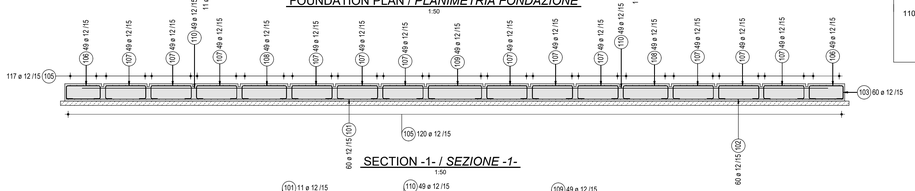
NOTE (rif. UNI 11104:2016 / UNI EN 206-1)

EXPOSURE CLASS CLASSE DI ESPOSIZIONE	XC 2 (XF 3)
MINIMUM CONCRETE COVER COPRIFERRO MINIMO	30 mm
CONCRETE SLUMP CONSISTENZA CALCESTRUZZO	S4
MAX AGGREGATE SIZE DIMENSIONE MASSIMA INERTE	25 mm

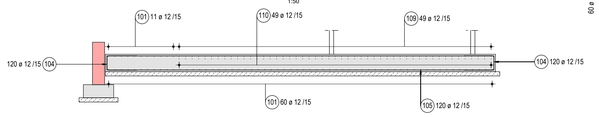
A0 - Do not scale



FOUNDATION PLAN / *PLANIMETRIA FONDAZIONE*
1:50



SECTION -1- / *SEZIONE -1-*
1:50



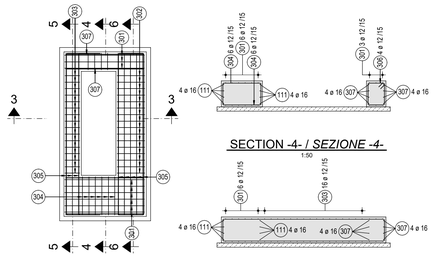
SECTION -2- / *SEZIONE -2-*
1:50

BAR SCHEDULE - BENDING SHAPE
DISTINTA ARMATURE

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
101	71	12	12.00	1200	852.00	756.58
102	71	12	6.91	691	490.61	435.66
103	120	12	1.71	31 70	205.20	182.22
104	240	12	1.74	34 70	417.60	370.83
105	237	12	8.94	894	2118.78	1881.48
106	98	12	1.72	15 31 80	168.56	149.68
107	588	12	1.86	94 31 15	1093.68	971.19
108	98	12	1.96	15 31 104	192.08	170.57
109	49	12	2.16	124 31 15	105.84	93.99
110	98	12	8.91	891	873.18	775.38

Total Mass / *Peso totale* [kg] : 5787.58

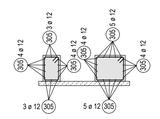
ACU



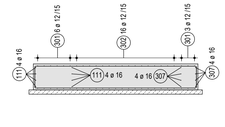
FOUNDATION PLAN
PLANIMETRIA FONDAZIONE
1:50

SECTION -4- / *SEZIONE -4-*
1:50

SECTION -5- / *SEZIONE -5-*
1:50



SECTION -3- / *SEZIONE -3-*
1:50



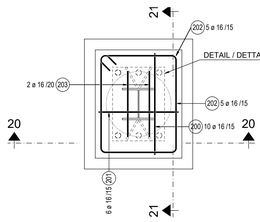
SECTION -6- / *SEZIONE -6-*
1:50

BAR SCHEDULE - BENDING SHAPE
DISTINTA ARMATURE

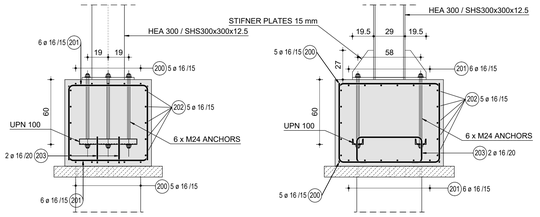
Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
111	8	16	1.80	180	14.40	22.75
301	9	12	5.08	54 184	45.72	40.60
302	16	12	2.68	34 64	42.88	38.08
303	16	12	2.08	34 54	33.28	29.55
304	12	12	1.89	50 89	22.68	20.14
305	32	12	4.74	374 50	151.68	134.69
306	4	12	2.13	28 52	8.52	7.57
307	8	16	1.80	180	14.40	22.75

Total Mass / *Peso totale* [kg] : 316.13

RMU



FOUNDATION PLAN / *PLANIMETRIA FONDAZIONE*
1:20



SECTION / *SEZIONE -20-*
1:20

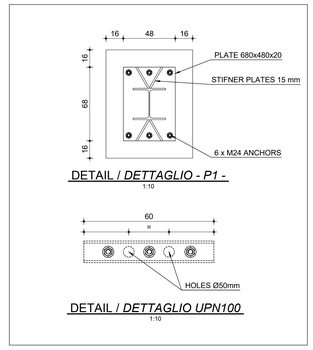
SECTION / *SEZIONE -21-*
1:20

PAC.1

BAR SCHEDULE - BENDING SHAPE
DISTINTA ARMATURE

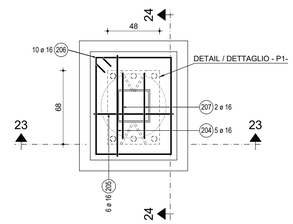
Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
200	10	16	2.42	74 94	24.20	38.24
201	12	16	2.14	72 74	25.68	40.57
202	5	16	3.53	71 91 61	17.65	27.89
203	2	16	1.31	25 10	2.62	4.14

Total Mass / *Peso totale* [kg] : 110.84

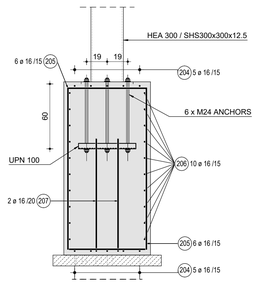


DETAIL / *DETTAGLIO - P1 -*
1:10

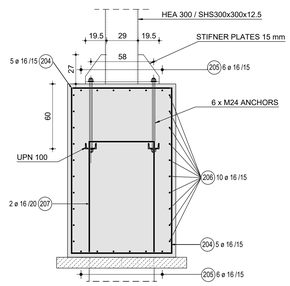
DETAIL / *DETTAGLIO UPN100*
1:10



FOUNDATION PLAN / *PLANIMETRIA FONDAZIONE*
1:20



SECTION / *SEZIONE -23-*
1:20



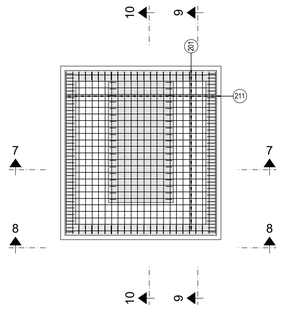
SECTION / *SEZIONE -24-*
1:20

PAC.2

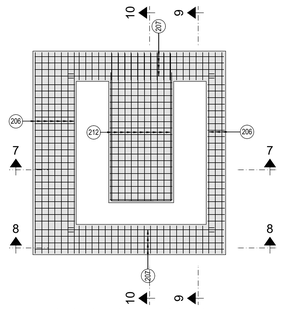
BAR SCHEDULE - BENDING SHAPE
DISTINTA ARMATURE

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
204	10	16	4.02	84 154	40.20	63.52
205	12	16	3.74	74 190	44.88	70.91
206	10	16	3.56	71 91 61 10 105	35.60	56.25
207	2	16	2.91	5.82	9.20

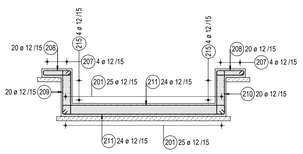
Total Mass / *Peso totale* [kg] : 199.88



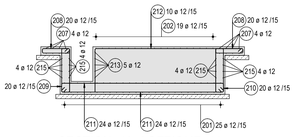
SECTION -A- / *SEZIONE -A-*
1:50



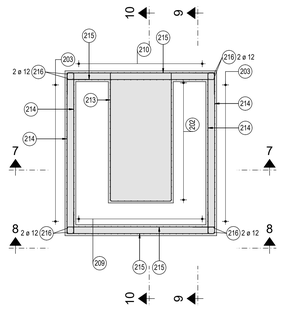
SECTION -C- / *SEZIONE -C-*
1:50



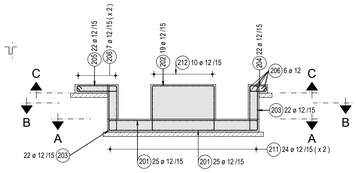
SECTION -9- / *SEZIONE -9-*
1:50



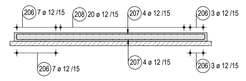
SECTION -10- / *SEZIONE -10-*
1:50



SECTION -B- / *SEZIONE -B-*
1:50



SECTION -7- / *SEZIONE -7-*
1:50



SECTION -8- / *SEZIONE -8-*
1:50

TRAFO - 1

BAR SCHEDULE - BENDING SHAPE
DISTINTA ARMATURE

Mark *Pos.*	Pcs *Pezzi*	ø [mm]	Single length *Lungh. singola* [m]	Dimensioned bending shape *Misure sagomature* (not to scale / *non in scala*)	Total length *Lungh. totale* [m]	Mass *Peso* [kg]
201	50	12	3.84	20 344	192.00	170.50
202	19	12	3.82	15 34 144	72.58	64.45
203	44	12	2.57	19 10 104	113.08	100.42
204	22	12	1.30	14 10 39	28.60	25.40
205	22	12	2.37	10 14 93	52.14	46.30
206	20	12	4.88	12 464	97.60	86.67
207	16	12	4.60	12 436	73.60	65.36
208	40	12	1.75	12 10 64	70.00	62.16
209	20	12	2.66	10 20 102	53.20	47.24
210	20	12	2.65	19 10 102	53.00	47.06
211	48	12	4.15	20 375	199.20	176.89
212	10	12	4.40	100 340	44.00	39.07
213	10	12	3.97	100 297	39.70	35.25
214	16	12	4.40	51 16 372	70.40	62.52
215	16	12	4.10	51 16 342	65.60	58.25
216	8	12	2.51	13 10 104	20.08	17.83

Total Mass / *Peso totale* [kg] : 1105.37

General Notes

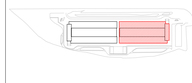
1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Refer to this drawing for drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final detailed installation shop drawings.
7. Final sealing coordinated with the architectural interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato.
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del contraente fornire indicazioni di montaggio accurate.
7. La quota degli elementi finiti dipendono da eventuali modifiche a pacchetto di copertura.
8. Le dimensioni delle coordinate / passaggi impermetici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

50 0 50 100 150 200
CI 12 12
SCALE 1:50

Key Plan



NOTE :

1. Refer to TRAFO-1 reinforcements for TRAFO-2 foundations, updating the rebar sizes with actual foundation design / Fare riferimento ai rinforzi TRAFO-1 per le fondazioni TRAFO-2, aggiornando le dimensioni dell'armatura con il progetto effettivo della fondazione

2- Refer to RMU reinforcements for any other foundations that is not representet here, updating the rebar sizes with actual foundation design / Fare riferimento ai rinforzi RMU per qualsiasi altra fondazione non rappresentata qui, aggiornando le dimensioni delle armature con il vero design della fondazione

P02	Issued for Construction	DAP/BW/MEG 03/02/2023
P01	Issued for Compass Review	DAP/BW/MEG 16/12/2022
Rev	Details	By / Chkd / App Date

Client

COMPASS ARTIGIANATO

Architectural / Civil

STRUCTURING ARIATTA Ingegneria Strutturale

MAESTRALE Architetti

Lead Consultant / MEP Designer

Black & White Engineering
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Dubai Marina
Dubai Marina
PO Box 27793
Tel: +971 4 360 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Foundations
External Yard Equipment Foundations Reinforcement
ACU / RMU / TRAFO / PAC.1 / PAC.2

Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**
Project Number	Scale @ A0 / Revision
P10424	**1:50** / **P02**
Drawing Number	
SB512	

MATERIALS / *MATERIALI*

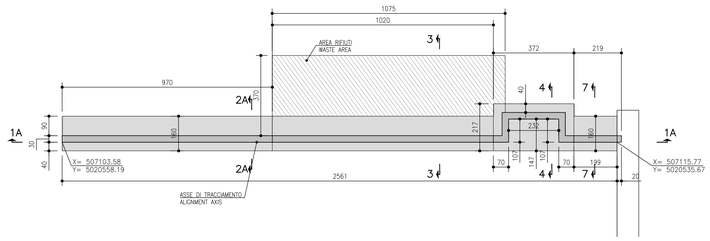
CONCRETE CLASS CLASSE CALCESTRUZZO		**C30/37**
AT UNSHORING AL DISARMO	*Rck* ≥	2,5 kN/cm²
AT 28 DAYS A 28 GIORNI	*Rck* ≥	3,7 kN/cm²
REBARS CLASS TIPO ACCIAIO		**B 450 C**

NOTE (rif. UNI 11104:2016 / UNI EN 206-1)

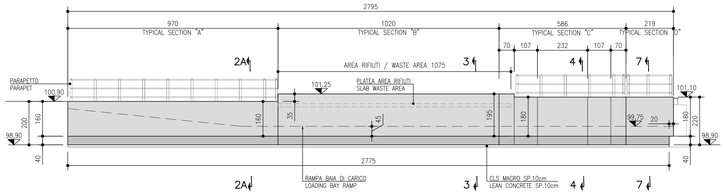
EXPOSURE CLASS CLASSE DI ESPOSIZIONE	XC 2 (XF 3)
MINIMUM CONCRETE COVER COPRIFERRO MINIMO	30 mm
CONCRETE SLUMP CONSISTENZA CALCESTRUZZO	S4
MAX AGGREGATE SIZE DIMENSIONE MASSIMA INERTE	25 mm

A0 - Do not scale

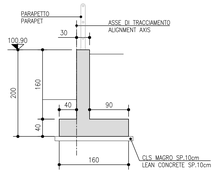
VISTA DALL'ALTO - TOP VIEW
1:100
MURO EST - EAST WALL



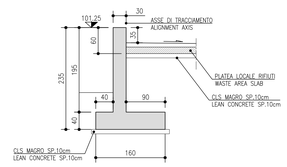
SVILUPPATA SEZIONE - DEVELOPED SECTION 1A-1A
1:100
MURO EST - EAST WALL



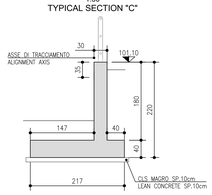
SEZIONE CARPENTERIA - FORMWORK SECTION 2A-2A
1:50
TYPICAL SECTION "A"



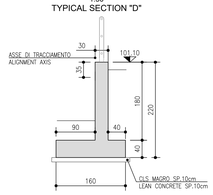
SEZIONE CARPENTERIA - FORMWORK SECTION 3-3
1:50
TYPICAL SECTION "B"



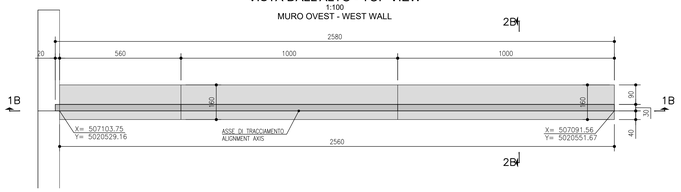
SEZIONE CARPENTERIA - FORMWORK SECTION 4-4
1:50
TYPICAL SECTION "C"



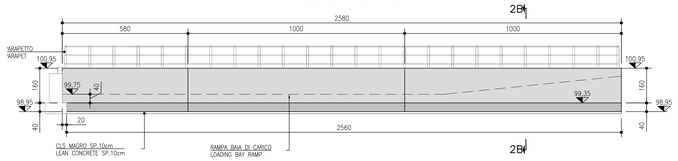
SEZIONE CARPENTERIA - FORMWORK SECTION 7-7
1:50
TYPICAL SECTION "D"



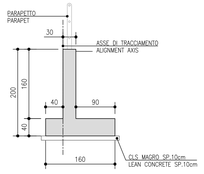
VISTA DALL'ALTO - TOP VIEW
1:100
MURO OVEST - WEST WALL



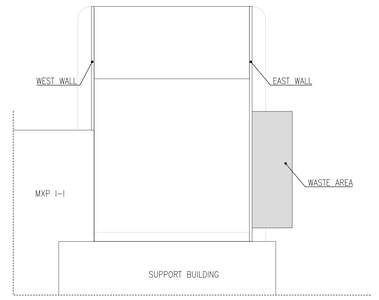
SEZIONE - SECTION 1B-1B
1:100
MURO OVEST - WEST WALL



SEZIONE - SECTION 2B-2B
1:50
MURO OVEST - WEST WALL

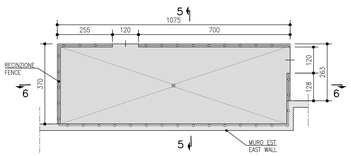


KEY PLAN

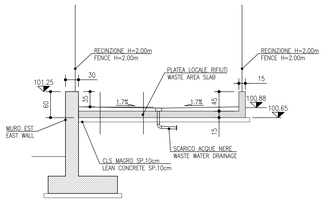


CALCESTRUZZO — CONCRETE	
LEAN CONCRETE / MAGRONE	
– RESISTENCE CLASS / CLASSE DI RESISTENZA	: C12/15
SLAB AND WALL ELEVATIONS / PLATEA E ELEV.	
– RESISTENCE CLASS / CLASSE DI RESISTENZA	: C30/37
– EXPOZSURE CLASS / CLASSE DI ESPOSIZIONE	: XC2+XF3
– MINIMUM CONCRETE COVER / COPRIFERRO MIN.	: c=40 mm
– SLUMP / CONSISTENZA	: S4
– MAX AGGREGATE SIZE / MAX. AGGREGATO	: 25 mm
WALL FOUNDATIONS / FONDAZIONI MURI	
– RESISTENCE CLASS / CLASSE DI RESISTENZA	: C25/30
– EXPOZSURE CLASS / CLASSE DI ESPOSIZIONE	: XC2
– MINIMUM CONCRETE COVER / COPRIFERRO MIN.	: c=40 mm
– SLUMP / CONSISTENZA	: S4
– MAX AGGREGATE SIZE / MAX. AGGREGATO	: 25 mm
REBAR / ACCIAIO PER C.A.	
– REBARS CLASS / TIPO DI ACCIAIO	: B450C

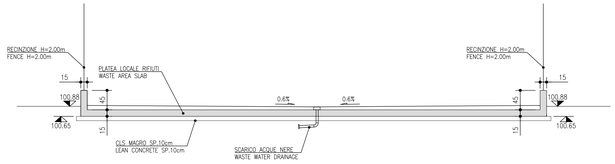
AREA RIFIUTI - WASTE AREA
1:100
PIANTA - LAYOUT



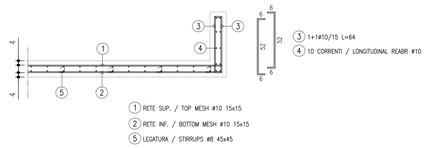
AREA RIFIUTI - WASTE AREA
1:50
SEZIONE - SECTION 5-5



AREA RIFIUTI - WASTE AREA
1:50
SEZIONE - SECTION 6-6



AREA RIFIUTI - WASTE AREA
1:20
ARMATURA - REINFORCEMENT



General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise noted. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final installation/construction shop drawings.
7. Final setting coordinated with electro-mechanical design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del costruttore fornire indicazioni di montaggio accurate.
7. La quota degli elementi finiti dipendono da eventuali modifiche ai pacchetti di copertura.
8. Il costruttore deve coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

300 0 300 600 900 1200
SCALE 1:300

Key Plan

P02	Issued for Construction	CRL/EF/BH/MEG | 03/02/2023
P01	Issued for Compass Review	CRL/EF/BH/MEG | 16/12/2002
Details		

Client
COMPASS datacenters

Architectural / Civil / Structural
STRONGING
MAESTRALE

Lead Consultant / MEP Designer
Black & White Engineering
Office No. 1601
Marina Plaza
Dubai marina
PO Box 27763
Tel: +971 4 360 2228
www.bw-engineering.com

Project Title
MXP I-I

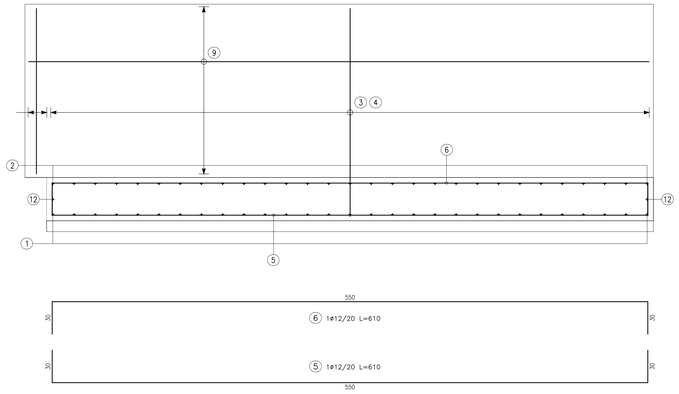
Drawing Title
Foundations
Loading Bay and Waste Area

Project Status
ISSUED FOR CONSTRUCTION

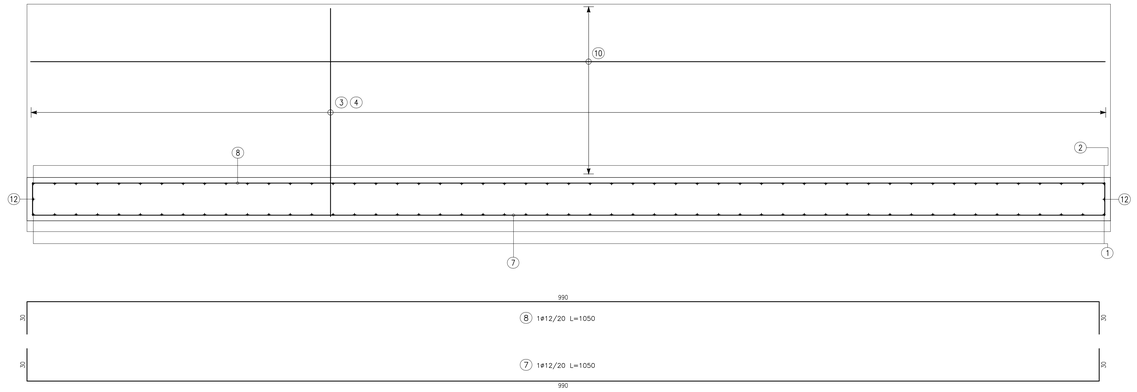
Discipline	Status Code
Structural	S5
Project Number	Scale @ A0 / Revision
P10424	1:100 / P02
Drawing Number	
SB112	

A0 - Do not scale

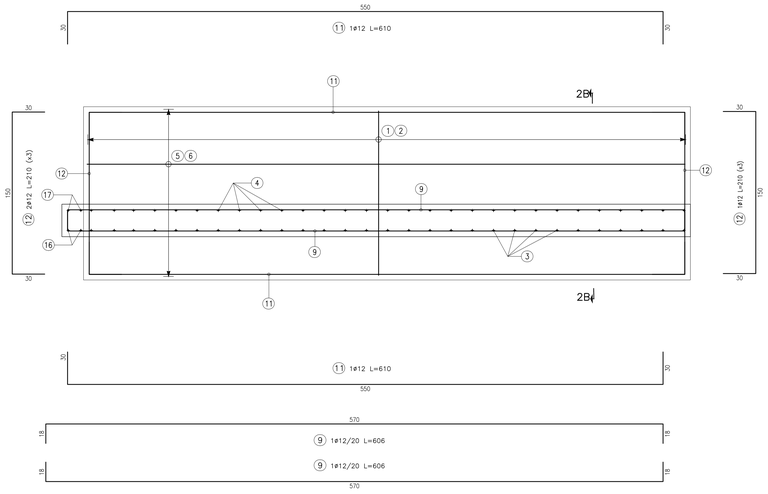
SEZIONE - SECTION 1-1
1:20
WEST WALL L=5.80m



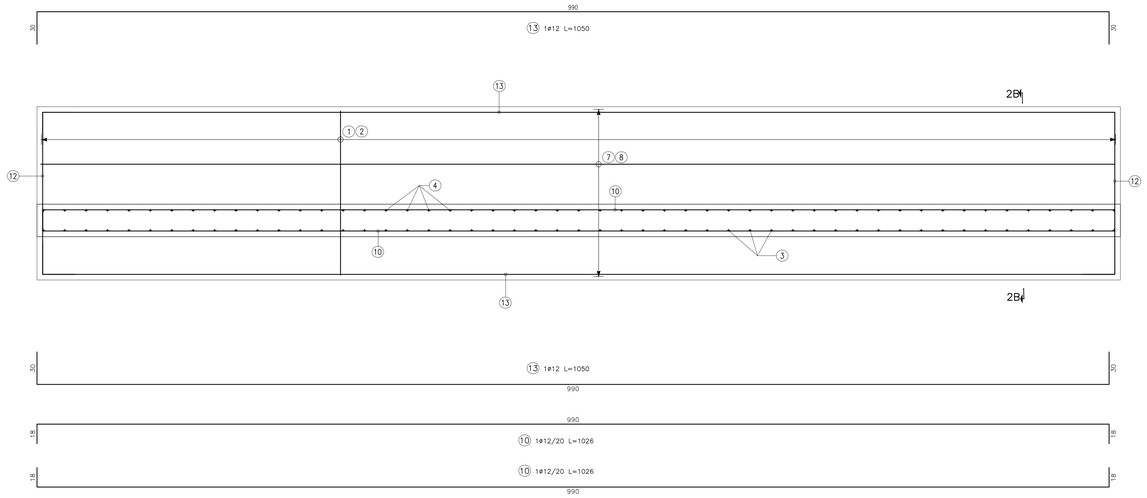
SEZIONE - SECTION 1-1
1:20
WEST WALL L=10.00m



VISTA DALL'ALTO - TOP VIEW
1:20
WEST WALL L=5.80m



VISTA DALL'ALTO - TOP VIEW
1:20
WEST WALL L=10.00m



SEZIONE - SECTION REINFORCEMENT 2B-2B
1:20
MURO OVEST - WEST WALL

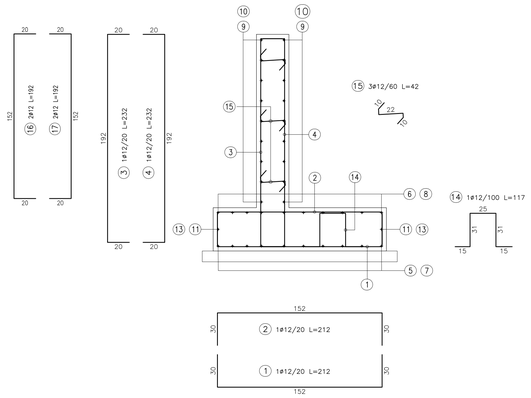


TABELLA FERRI / REBAR TABLE

ELEMENTO: MURO 1 — N.ELEMENTI: 1

POSIZIONE	N. PEZZI	Ø [mm]	L [cm]	L. TOT [m]	PESO [kg]	SCHEMA PIEGATURA (misure al filo esterno)
1	131	12	212	277.72	246.62	30 / 150 / 30
2	131	12	212	277.72	246.62	30 / 150 / 30
3	131	12	232	303.92	269.88	20 / 192 / 20
4	131	12	232	303.92	269.88	20 / 192 / 20
5	10	12	610	60.97	54.14	30 / 550 / 30
6	10	12	610	60.97	54.14	30 / 550 / 30
7	20	12	1050	209.92	186.41	30 / 990 / 30
8	20	12	1050	209.92	186.41	30 / 990 / 30
9	27	12	606	163.53	145.22	18 / 570 / 18
10	36	12	1026	369.22	327.86	18 / 990 / 18
11	2	12	610	12.19	10.83	30 / 550 / 30
12	6	12	210	12.58	11.17	30 / 150 / 30
13	4	12	1050	41.98	37.28	30 / 990 / 30
14	26	12	117	30.32	26.92	31 / 25 / 31 / 125
15	129	12	42	54.70	48.57	60 / 22 / 15
16	2	12	192	3.84	3.41	20 / 152 / 20
17	2	12	192	3.84	3.41	20 / 152 / 20
PESO TOTALE:					2128.77	

CALCESTRUZZO – CONCRETE	
LEAN CONCRETE / MAGRONE	
– RESISTENCE CLASS / CLASSE DI RESISTENZA	: C12/15
SLAB AND WALL ELEVATIONS / PLATEA E ELEV.	
– RESISTENCE CLASS / CLASSE DI RESISTENZA	: C30/37
– EXPOZSURE CLASS / CLASSE DI ESPOSIZIONE	: XC2+XF3
– MINIMUM CONCRETE COVER / COPRIFERRO MIN.	: c=40 mm
– SLUMP / CONSISTENZA	: S4
– MAX AGGREGATE SIZE / MAX. AGGREGATO	: 25 mm
WALL FOUNDATIONS / FONDAZIONI MURI	
– RESISTENCE CLASS / CLASSE DI RESISTENZA	: C25/30
– EXPOZSURE CLASS / CLASSE DI ESPOSIZIONE	: XC2
– MINIMUM CONCRETE COVER / COPRIFERRO MIN.	: c=40 mm
– SLUMP / CONSISTENZA	: S4
– MAX AGGREGATE SIZE / MAX. AGGREGATO	: 25 mm
REBAR / ACCIAIO PER C.A.	
– REBARS CLASS / TIPO DI ACCIAIO	: B450C

General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All symbols and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final installation coordination shop drawings.
7. Final ceiling coordinated with architectural interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni delle attrezzature e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsibilità del Committente fornire indicazioni di montaggio accurate.
7. La quota degli elementi finiti dipendono da eventuali modifiche ai pacchetto di copertura.
8. Il contraente deve coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

300 0 300 600 900 1200
SCALE 1:300

Key Plan

P02	Issued for Construction	CRL/RF/BH/MEG	03/02/2023
P01	Issued for Compass Review	CRL/RF/BH/MEG	16/12/2022

Details

Client

COMPASS AUTOMATICS

Architectural / Civil / Structural

MAESTRALE

Lead Consultant / MEP Designer

Black & White Engineering
Office No. 1501
Aspin Tower
Dubai Hamra
PO Box 27783
Tel: +971 4 366 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Foundations
Loading Bay
Retaining Walls Reinforcement
Part 1/2

Project Status
ISSUED FOR CONSTRUCTION

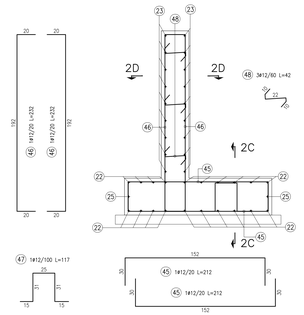
Discipline	Status Code
Structural	S5

Project Number	Scale @ A0	Revision
P10424	1:20	P02

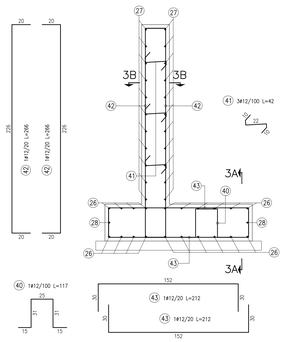
Drawing Number
SB513

A0 - Do not scale

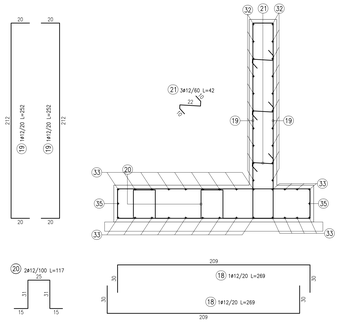
SEZIONE ARMATURA - REINFORCEMENT SECTION 2A-2A
1:20
TYPICAL SECTION "A"



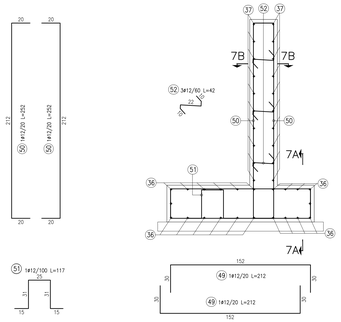
SEZIONE ARMATURA - REINFORCEMENT SECTION 3-3
1:20
TYPICAL SECTION "B"



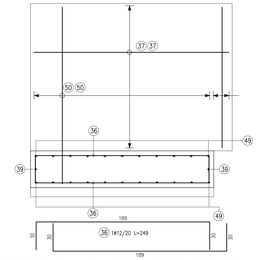
SEZIONE ARMATURA - REINFORCEMENT SECTION 4-4
1:20
TYPICAL SECTION "C"



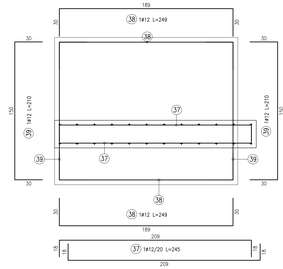
SEZIONE ARMATURA - REINFORCEMENT SECTION 7-7
1:20
TYPICAL SECTION "D"



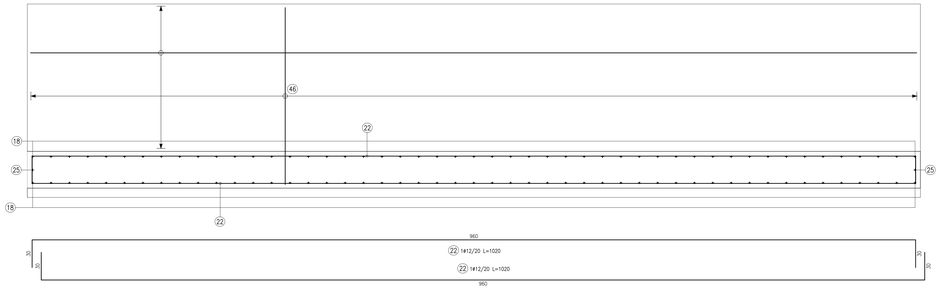
SEZIONE ARMATURA - REINFORCEMENT SECTION 7A-7A
1:20
FOUNDATION TYPICAL SECTION "D" - L=1.99m



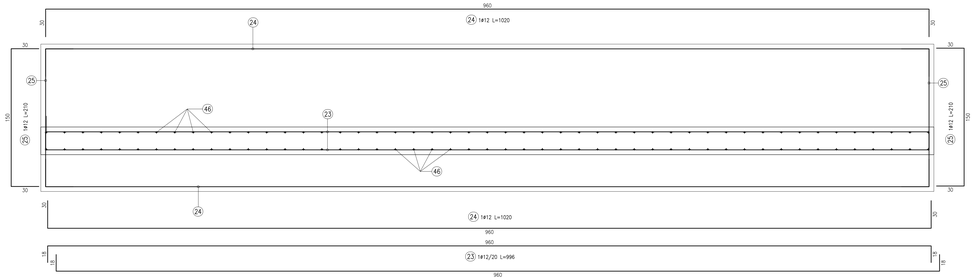
VISTA DALL'ALTO - TOP VIEW
1:20
L=1.99m



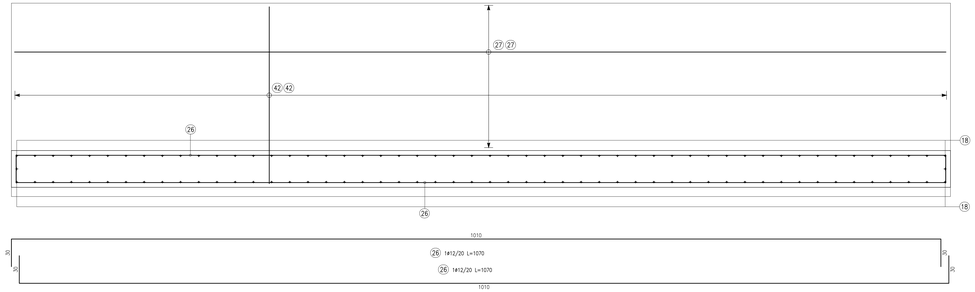
SEZIONE ARMATURA - REINFORCEMENT SECTION 2C-2C
1:20
FOUNDATION TYPICAL SECTION "A" - L=9.70m



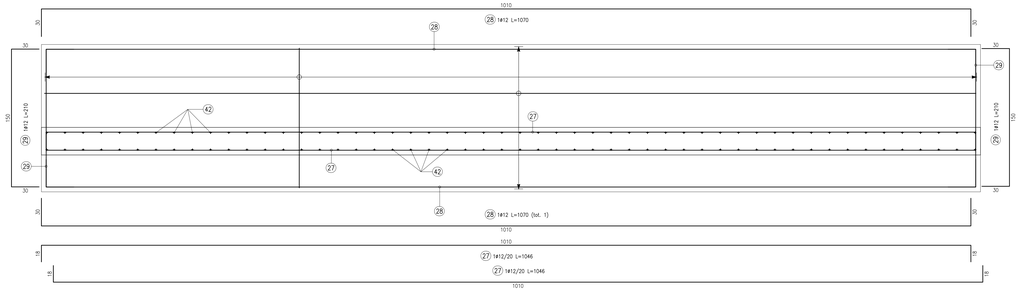
SEZIONE ARMATURA - REINFORCEMENT SECTION 2D-2D
1:20
TOP VIEW "A"- L=9.70m



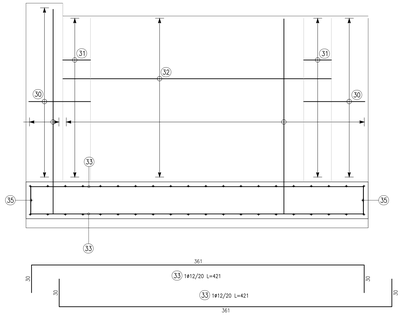
SEZIONE ARMATURA - REINFORCEMENT SECTION 3A-3A
1:20
FOUNDATION TYPICAL SECTION "B" - L=10.20m



SEZIONE AARMATURA - REINFORCEMENT SECTION 3B-3B
1:20
TOP VIEW "B" - L=10.20m



VISTA FRONTALE ARMATURA - FRONT VIEW REINFORCEMENT
1:20
FRONT VIEW "C" - L=5.86m



CALCESTRUZZO – CONCRETE	
LEAN CONCRETE / MAGRONE	
– RESISTENCE CLASS / CLASSE DI RESISTENZA	: C12/15
SLAB AND WALL ELEVATIONS / PLATEA E ELEV.	
– RESISTENCE CLASS / CLASSE DI RESISTENZA	: C30/37
– EXPOSURE CLASS / CLASSE DI ESPOSIZIONE	: XC2+XF3
– MINIMUM CONCRETE COVER / COPRIFERRO MIN.	: c=40 mm
– SLUMP / CONSISTENZA	: S4
– MAX AGGREGATE SIZE / MAX. AGGREGATO	: 25 mm
WALL FOUNDATIONS / FONDAZIONI MURI	
– RESISTENCE CLASS / CLASSE DI RESISTENZA	: C25/30
– EXPOSURE CLASS / CLASSE DI ESPOSIZIONE	: XC2
– MINIMUM CONCRETE COVER / COPRIFERRO MIN.	: c=40 mm
– SLUMP / CONSISTENZA	: S4
– MAX AGGREGATE SIZE / MAX. AGGREGATO	: 25 mm
REBAR / ACCIAIO PER C.A.	
– REBARS CLASS / TIPO DI ACCIAIO	: B450C

VISTA DALL'ALTO - TOP VIEW
1:20
TOP VIEW "C"- L=5.86m

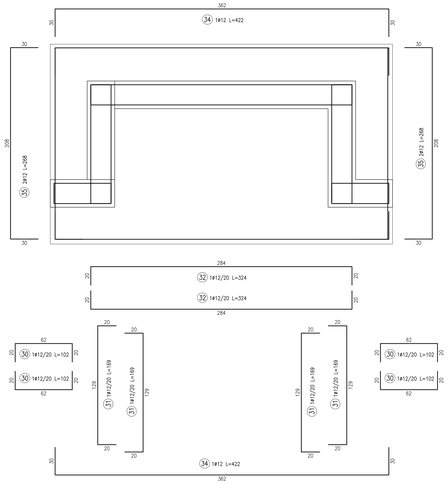


TABELLA FERRI / REBAR TABLE

ELEMENTO: MURO 2 — N.ELEMENTI: 1

POSIZIONE	N. PEZZI	Ø [mm]	L [cm]	L. TOT [m]	PESO [kg]	SCHEMA PIEGATURA (misure al filo esterno)
18	242	12	269	650.98	578.07	269
19	44	12	252	110.88	98.46	208 252 30
20	8	12	117	9.33	8.28	31 31 31 117
21	138	12	42	58.51	51.96	22 42
22	20	12	1020	203.92	181.08	1020
23	18	12	996	179.21	159.14	996
24	2	12	1020	20.39	18.11	1020
25	2	12	210	4.19	3.72	210
26	20	12	1070	213.92	189.96	1070
27	22	12	1046	230.03	204.27	1046
28	2	12	1070	21.39	19.00	1070
29	2	12	210	4.19	3.72	210
30	40	12	102	40.80	36.23	62 102 62
31	36	12	169	60.84	54.03	129 169 129
32	20	12	324	64.73	57.48	284 324 284
33	26	12	421	109.53	97.26	361 421 361
34	2	12	422	8.45	7.50	362 422 362
35	4	12	268	10.71	9.51	208 268 208
36	20	12	249	49.72	44.15	189 249 189
37	20	12	245	48.92	43.44	209 245 209
38	2	12	249	4.97	4.42	189 249 189
39	2	12	210	4.19	3.72	150 210 150
40	11	12	117	12.83	11.39	31 31 31 117
41	33	12	42	13.99	12.42	22 42
42	104	12	266	277.06	246.03	266
43	104	12	212	220.48	195.79	152 212 152
45	98	12	212	207.76	184.49	152 212 152
46	98	12	232	227.36	201.90	152 232 152
47	10	12	117	11.66	10.35	31 31 31 117
48	51	12	42	21.62	19.20	22 42
49	22	12	212	46.64	41.42	152 212 152
50	24	12	252	60.48	53.71	212 252 212
51	1	12	117	1.17	1.04	31 31 31 117
52	138	12	42	58.51	51.96	22 42
PESO TOTALE:				2903.21		

General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment items shown are typical. The Contractor should show actual.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the Engineer.
6. This drawing is not an installation drawing, it is the Contractors responsibility to make final coordinated installation shop drawings.
7. Contractor to coordinate subject to Mexor design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in concrete.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con la procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare da questo disegno. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali della attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simbologia di B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Il Contraente dovrà coordinare le posizioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetti di copertura.
8. Il Committente dovrà coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

SCALE 1:300

Key Plan

P02	Issued for Construction	CRL/SF/BH/MEG | 03/02/2023
P01	Issued for Compass Review	CRL/SF/BH/MEG | 16/12/2022
Details		

Client: COMPASS

Architectural / Civil / Structural: MAESTRALE; STUDIO ING. CRISTA

Lead Consultant / MEP Designer: Block & White Engineering, Office No. 1801, Marina Plaza, Dubai, UAE, PO Box 27750, Tel: +971 4 360 2228, www.bw-engineering.com

Project Title: MXP I-I

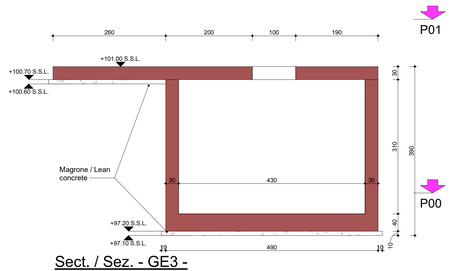
Drawing Title: Foundations Loading Bay Retaining Walls Reinforcement Part 2/2

Project Status: **ISSUED FOR CONSTRUCTION**

Discipline	Status Code
Structural	S5
Project Number: P10424	Scale @ A0: 1:20 — Revision: P02

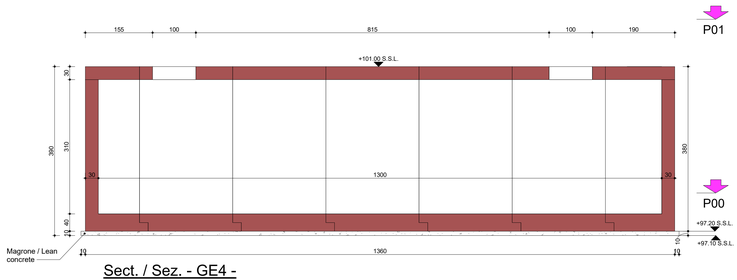
Drawing Number: **SB514**

A0 - Do not scale



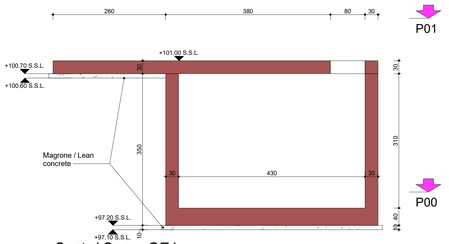
Sect. / Sez. - GE3 -

1 : 50



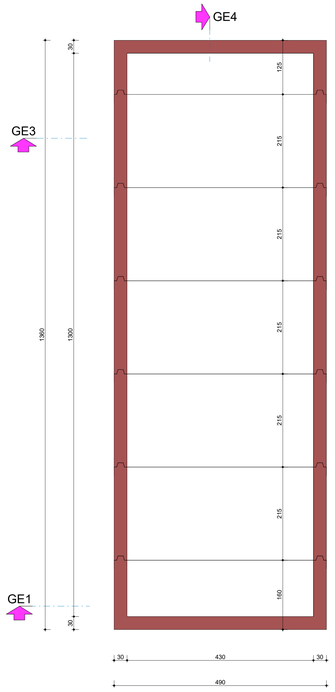
Sect. / Sez. - GE4 -

1 : 50



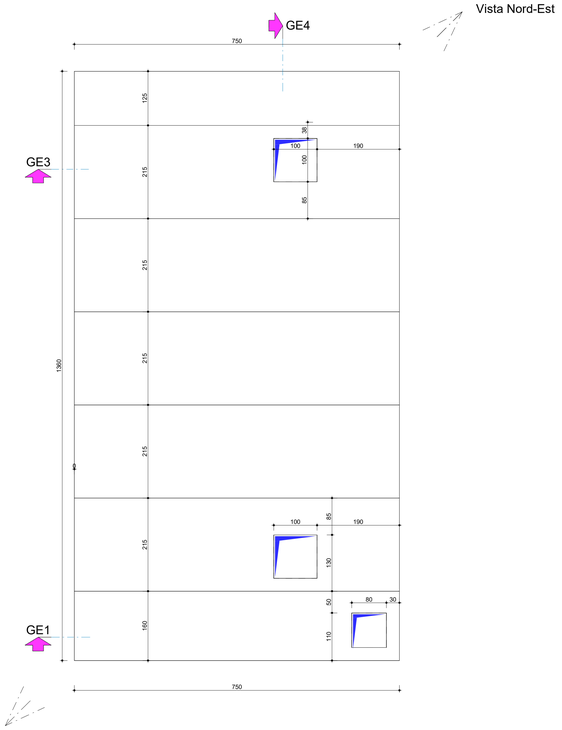
Sect. / Sez. - GE1 -

1 : 50



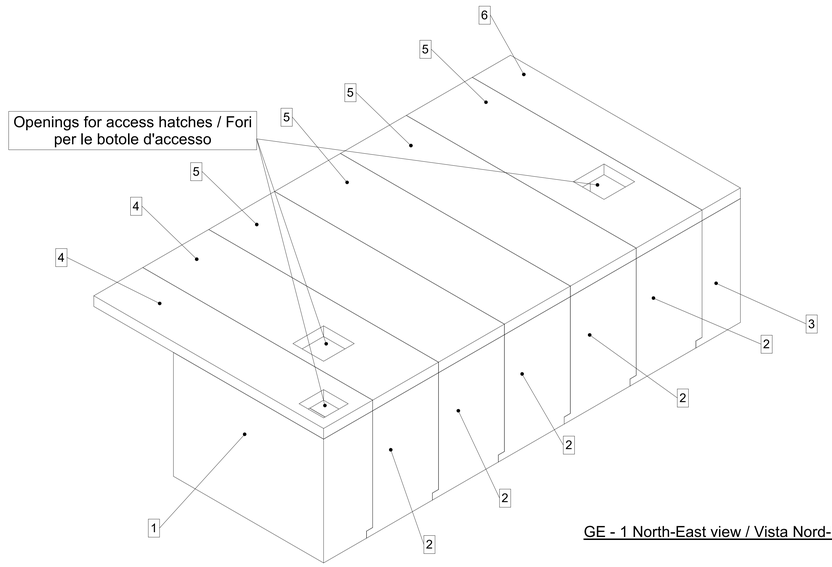
P00 - Top view / Vista dall'alto -

1 : 50



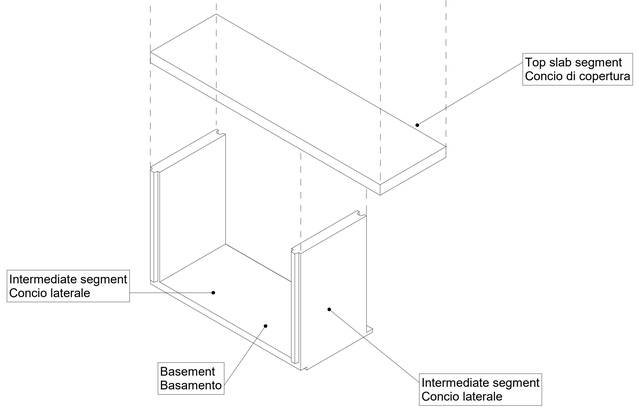
P01 - Top view / Vista dall'alto -

1 : 50

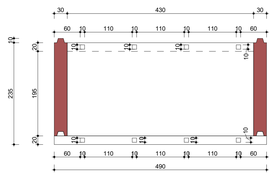


GE - 1 North-East view / Vista Nord-Est

GE-1 South-West view / Vista Sud-Ovest

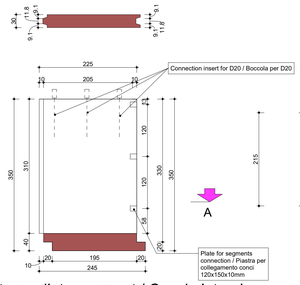


Precast elements typ. 1 / Elementi prefabbricati tip. 1



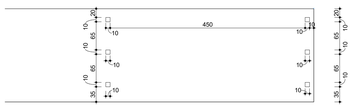
SEZ A - Top view / Vista dall'alto -

1 : 50



SEZ B - Intermediate segment / Concio laterale

1 : 50



Top slab segment / Concio di copertura

1 : 50

PRECAST ELEMENTS TYP.1 / ELEMENTI PREFABBRICATI TIP.1

General Notes

1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Verify all measurements on site.
3. All metric sizes of equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final ceiling coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

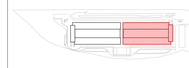
Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni delle attrezzature meccaniniari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'Ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche a pacchetti di copertura.
8. Il Committente deve coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

50 0 50 100 150 200

SCALE 1:50

Key Plan



NOTE:

1. For the position of the foundations refer to the sequence of drawings / Per la posizione delle pelle fondazioni fare riferimento alla serie di tavole SB101 - SB105

2. For connection details of non-structural items, waterproofing and finishing layers, refer to Architectural drawing AE530 and MEP drawings FP501 and EQ603 / Per i dettagli delle connessioni degli elementi non strutturali, impermeabilizzazione e finiture, fare riferimento al disegno architettonico AE530 e ai disegni impiantistici FP501 e EQ603.

3. For connection details of precast elements refer to drawing / Per i dettagli di connessione degli elementi prefabbricati fare riferimento alla tavola SB515

Rev	Details	By / Chkd / App	Date
P02	Issued for Construction	FCT/FBH/MEG	03/02/2023
P01	Issued for Compass Review	SM/FBH/MEG	16/12/2022

Client

COMPASS

Architectural / Civil / Structural

MAESTRALE

Lead Consultant / MEP Designer

Black & White Engineering
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Marina Plaza
Dubai marina
PO Box 27753
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Foundations
Concrete Fuel Tank Enclosure
GE-1

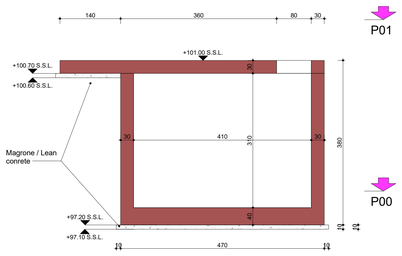
Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	S5

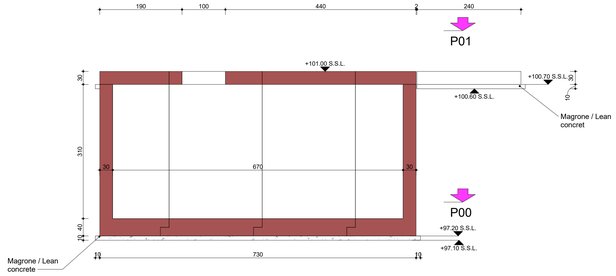
Project Number	Scale @ A0	Revision
P10424	1:50 / 1:25	P02

Drawing Number
SB113

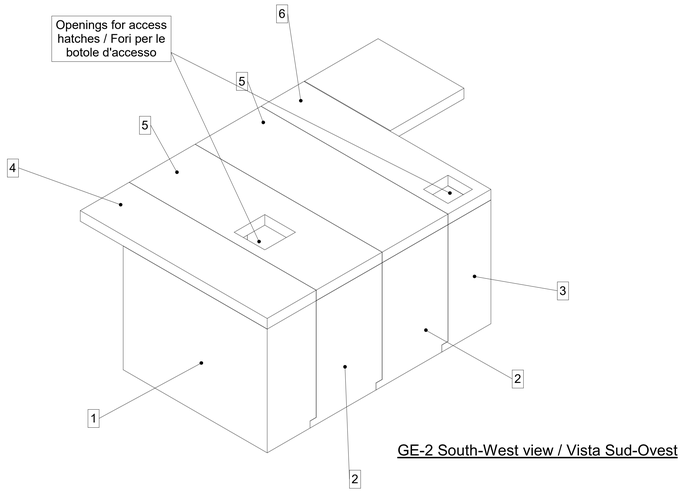
A0 - Do not scale



Sect. / Sez. - GE9 -
1 : 50

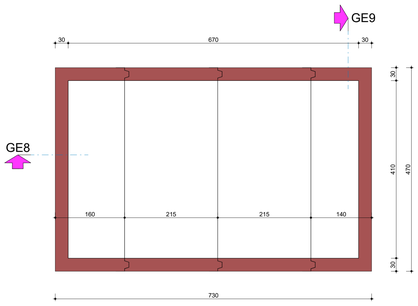


Sect. / Sez. - GE8 -
1 : 50

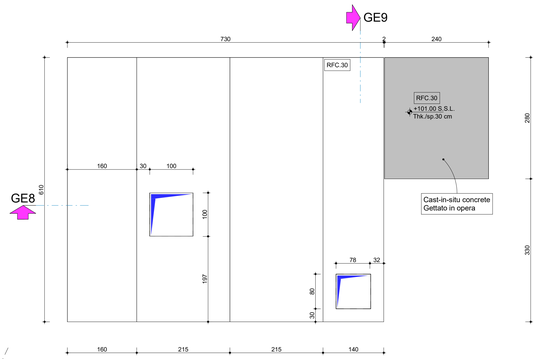


GE-2 South-West view / Vista Sud-Ovest

North-East view
Vista Nord-Est

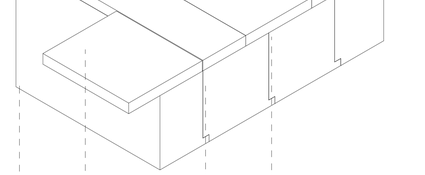


P00 - Top view / Vista dall'alto -
1 : 50

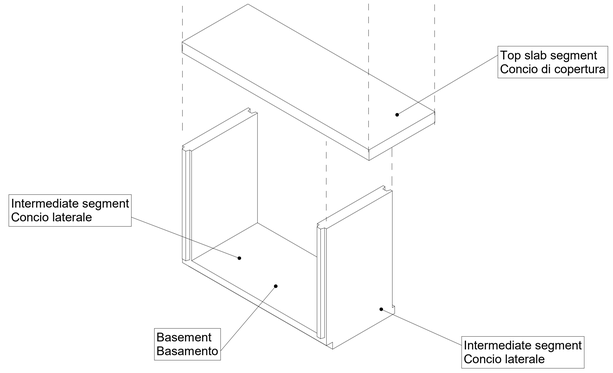


South-West view
Vista Sud-Ovest

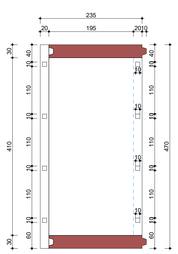
P01 - Top view / Vista dall'alto -
1 : 50



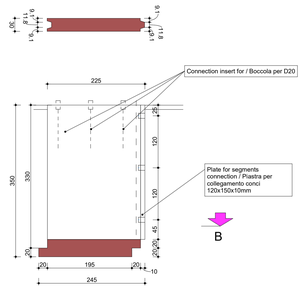
GE-2 North-East view / VistaNord-Est



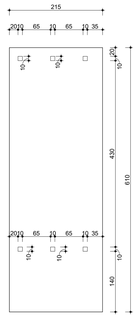
Precast elements typ.2 / Elementi prefabbricati tip.2



SEZ-B - Top view / Vista dall'alto -
1 : 50



SEZ-A - Intermediate segment / Concio laterale
1 : 50



Top slab segment / Concio di copertura
1 : 50

PRECAST ELEMENTS TYP.2 / ELEMENTI PREFABBRICATI TIP.2

General Notes

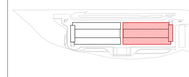
1. This drawing has been checked in accordance with Black & White Engineering (B&W) QA checking procedures.
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Verify all measurements on site.
3. All centre lines and element dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final setting coordination subject to interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

Note generali

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le quote in cantiere.
3. Le dimensioni degli elementi e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta consciendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche a pacchetti di copertura.
8. Questa tavola deve essere coordinata / paesaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

50 0 50 100 150 200
SCALE 1:50

Key Plan



NOTE:

1. For the position of the foundations refer to the sequence of drawings / Per la posizione delle fondazioni fare riferimento alla serie di tavole SB101- SB105

2. For connection details of non-structural items, waterproofing and finishing layers, refer to Architectural drawing AES30 and MEP drawing PP501 and EQ903 / Per i dettagli delle connessioni degli elementi non strutturali, impermeabilizzazione e finiture, fare riferimento al disegno architettonico AES30 e ai disegni impiantistici PP501 e EQ903.

3. For connection details of precast elements refer to drawing / Per i dettagli di connessione degli elementi prefabbricati fare riferimento alla tavola SB515

P02	Issued for Construction	FCT/FBH/MEG	03/02/2023
P01	Issued for Compass Review	SB/FBH/MEG	16/12/2022
Rev	Details	By / Chkd / App	Date

Client

COMPASS

Architectural / Civil / Structural

STUDIOENNE ARIATTA MAESTRALE

Lead Consultant / MEP Designer

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Project Title
MXP I-I

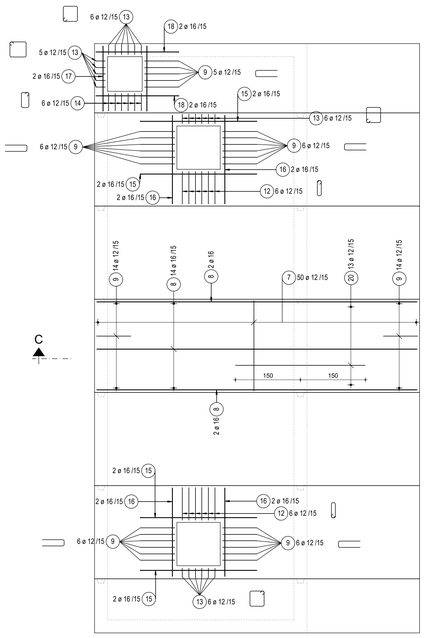
Drawing Title
Foundations
Concrete Fuel Tank Enclosure
GE-2

Project Status
ISSUED FOR CONSTRUCTION

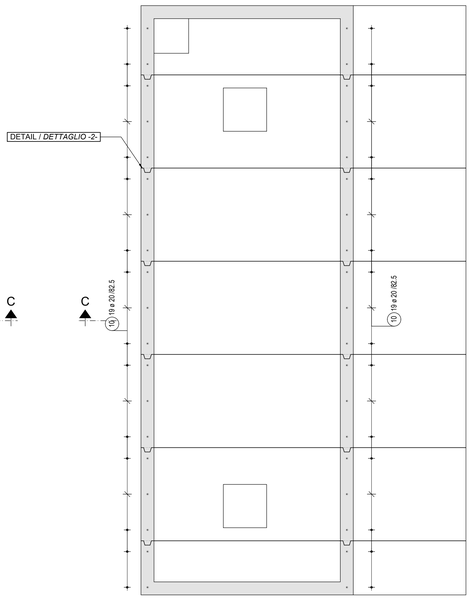
Discipline	Status Code
Structural	**S5**
Project Number	**Scale @ A0** / **Revision**
P10424	**1:50 / 1:25** / **P02**

Drawing Number
SB114

A0 - Do not scale

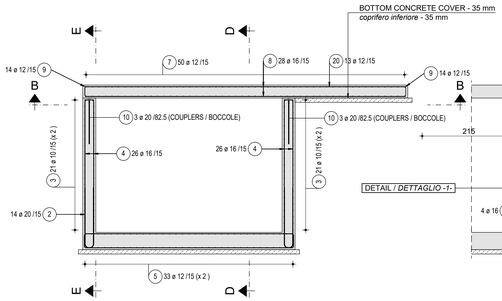


TOP VIEW / *VISTA DALL'ALTO -A-*
1:30

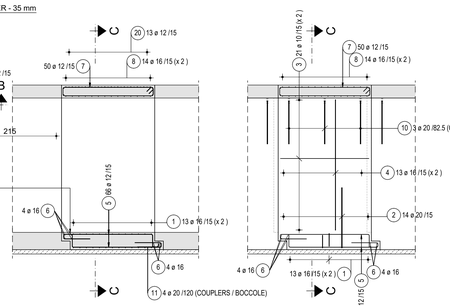


SECTION / *SEZIONE -B-*
1:50

COUPLERS POSITIONING / TRACCIAMENTO BOCCOLE

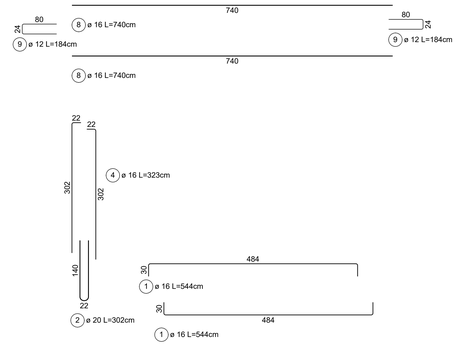


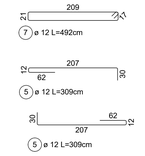
SECTION / *SEZIONE -C-*
1:50

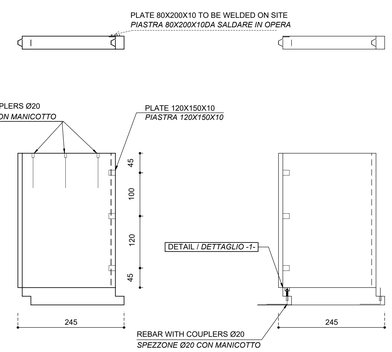


SECTION / *SEZIONE -D-*
1:50

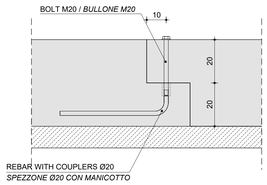
SECTION / *SEZIONE -E-*
1:50



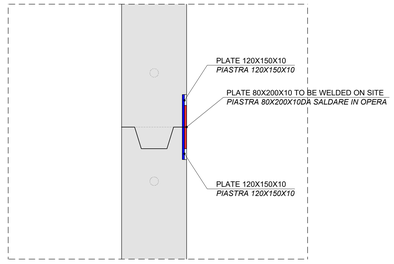




PRECAST JOINTS / COLLEGAMENTI PREFABBRICATI
1:50



DETAIL / *DETTAGLIO -1-*
1:10



DETAIL / *DETTAGLIO -2-*
1:10

<u>General Notes</u>

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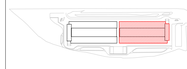
2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final installation/construction shop drawings.
7. Final ceiling coordinated with the interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

<u>Note generali</u>

1. Questa tavola deve essere controllata in accordo con le procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Verificare tutte le misure in cantiere.
3. Le dimensioni di impianti e macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del costruttore fornire indicazioni di montaggio accurate.
7. La tavola deve essere letta dipendono da eventuali modifiche a pacchetto di copertura.
8. Il costruttore deve coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

50 0 50 100 150 200
SCALE 1:50

Key Plan



NOTE :

1. Fire resistance R120 required for Top Slab Elements / Richiesta resistenza al fuoco R120 per i conci di copertura

2. Precast details may be modified by precast manifacturer according to their own standards. Equal performance and quality shall be proven by design and calculations, duly stamped and signed by a Chartered Engineer and approved by Site Supervision /
I dettagli di collegamento delle strutture prefabbricate possono essere variati dal prefabbricatore secondo i suoi standard. Prestazioni e qualità equivalenti verranno garantite da dettagli e calcoli firmati da un ingegnere abilitato ed approvati dalla Direzione Lavori.

Rev	Details	By / Chkd / App	Date
P03	Issued for Construction	DAP/FBH/MEG	23/02/2023
P02	Issued for Construction	DAP/FBH/MEG	03/02/2023
P01	Issued for Compass Review	DAP/FBH/MEG	16/12/2022

Client
COMPASS Tensteel

Architectural / Civil
MAESTRALE
STUDIO ING. GIANFRANCO BRIATTA
Ballance Structural Engineering

Lead Consultant / MEP Designer
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Dubai marina
PO Box 27753
Tel: +971 4 365 2228
www.bw-engineering.com

MATERIALS / *MATERIALI*

CONCRETE CLASS CLASSE CALCESTRUZZO		**C30/37**	
AT UNSHORING AL SBANDO	*Rck* ≥	2,5	kN/cm²
AT 28 DAYS A 28 GIORNI	*Rck* ≥	3,7	kN/cm²
REBARS CLASS TIPO ACCIAIO		**B 450 C**	

NOTE (rif. UNI 11104:2016 / UNI EN 206-1)

EXPOSURE CLASS CLASSE DI ESPOSIZIONE	XC 2 (XF 3)
MINIMUM CONCRETE COVER COPRIFERRO MINIMO	30 mm
CONCRETE SLUMP CONSISTENZA CALCESTRUZZO	S4
MAX AGGREGATE SIZE DIMENSIONE MASSIMA INERTE	25 mm

Project Title
MXP I-I

Drawing Title
Foundations
Concrete Fuel Tank Enclosure
Reinforcement and details

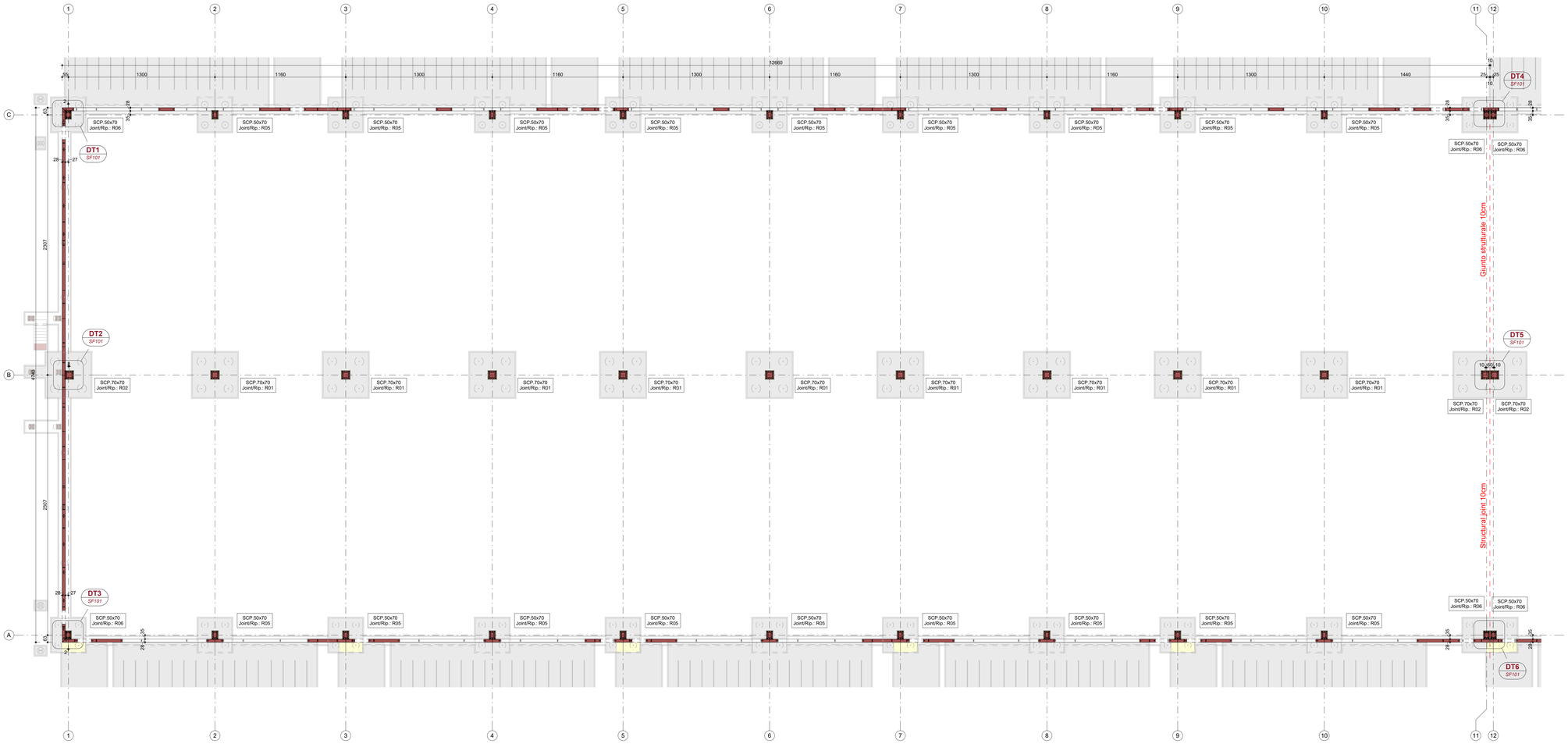
Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**

Project Number	Scale @ A0	Revision
P10424	**1:50**	**P03**

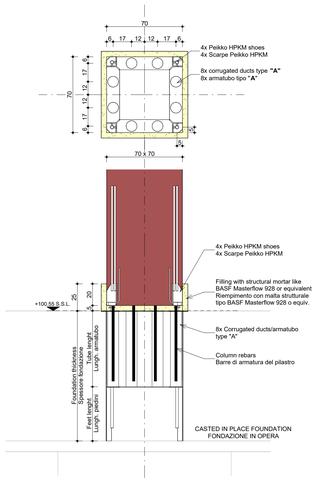
Drawing Number
SB515

A0 - Do not scale



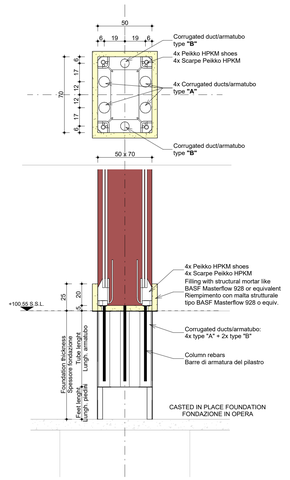
Columns plan - Top view / Vista dall'alto -

1 : 150



SCP.70x70 column foot joint / Ripresa pilastro

1 : 20

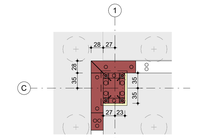


SCP.50x70 column foot joint / Ripresa pilastro

1 : 20

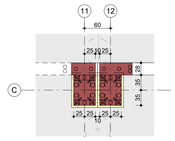
COLUMN FOOT JOINTS / RIPRESE DEI PILASTRI

Joint type Ripresa	Count Conteggio	Column size [cm] Dimensioni pilastro	Foundation thickness Spessore fondazione	Peikko shoe type Tipo scarpa Peikko	Peikko bolt type Tipo tirafondo	Tube A Quantity N° armatubo A	Tube A Ø Ø armatubo A	Tube B Quantity N° armatubo B	Tube B Ø Ø armatubo B	Tube lenght Lungh. armatubo	Feet lenght Lungh. piedini
R01	18	70x70	120 cm	HPKM24	HPM24P	8	100 mm	0	0 mm	70 cm	50 cm
R02	4	70x70	120 cm	HPKM30	HPM30L	8	100 mm	0	0 mm	80 cm	40 cm
R03	21	50x70	<variabile>	HPKM30	HPM30L	4	80 mm	2	80 mm	<variabile>	<variabile>
R04	3	50x70	120 cm	HPKM30	HPM30L	4	80 mm	2	80 mm	60 cm	60 cm
R05	36	50x70	100 cm	HPKM30	HPM30L	4	100 mm	2	80 mm	70 cm	30 cm
R06	8	50x70	100 cm	HPKM39	HPM39L	4	100 mm	2	80 mm	90 cm	10 cm
R07	2	50x70	120 cm	HPKM39	HPM39L	4	100 mm	2	80 mm	80 cm	40 cm
R08	2	50x70	160 cm	HPKM39	HPM39L	4	100 mm	2	80 mm	90 cm	70 cm



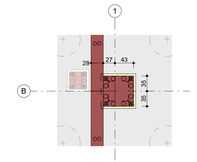
DT1 - Top view / Vista dall'alto -

1 : 50



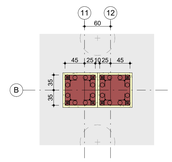
DT4 - Top view / Vista dall'alto -

1 : 50



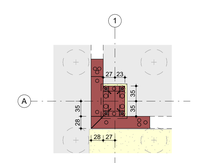
DT2 - Top view / Vista dall'alto -

1 : 50



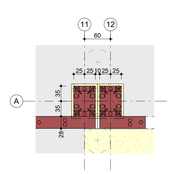
DT5 - Top view / Vista dall'alto -

1 : 50



DT3 - Top view / Vista dall'alto -

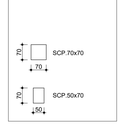
1 : 50



DT6 - Top view / Vista dall'alto -

1 : 50

Precast columns
Pilastri prefabbricati



Ga Plans Legend / Legenda Carpenteria

- Cast in place concrete section element / Sezione elementi gettati in opera
- Cast in place concrete element view / Elementi gettati in opera in vista
- Precast concrete section element / Sezione elementi prefabbricati
- Precast concrete element view / Elementi prefabbricati in vista
- Lean concrete element view / Sezione elementi magrone
- BASF Masterflow 928 or equivalent structural mortar / malta strutturale
- x.xx F.F.L.: Finish Floor Level in meter / Quota Piav. Finito in metri
- S.S.L.: Structural Surface Level in meter / Quota Rustico Strutturale in metri

Joints between precast elements / Collegamenti tra elementi prefabbricati: Refer to / Vedere tav. -SF507-

General Notes

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2. Do not scale from this drawing. All dimensions indicated are in centimeters unless otherwise stated. Validate all measurements on site.
3. All plant and equipment dimensions are typical. The Contractor should show actual, approved plant and equipment sizes.
4. This drawing is to be read in conjunction with all relevant B&W MEP specifications, schedules and standard key to symbols sheet.
5. Any discrepancies between the drawings and other documents should be brought to the attention of the engineer.
6. This drawing is not an installation drawing. It is the Contractors responsibility to make final coordinated installation shop drawings.
7. Final setting coordinated with mechanical interior design package.
8. Contractor to coordinate final distribution routes with available sleeves and openings in beams / structure.
9. The contents of this drawing shall be read in conjunction with the current revisions of other relevant Architectural, Structural, Mechanical and Electrical drawings and all relevant sections of the specifications.

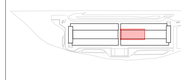
Note generali

1. Questa tavola deve essere controllata in accordo con la procedure di controllo e qualità di Black & White Engineering (B&W).
2. Non scalare la tavola. Tutte le quote sono espresse in cm se non diversamente indicato. Controllare le dimensioni in cantiere.
3. Le dimensioni di piccoli macchinari sono indicative. Sarà onere del Committente fornire le dimensioni reali delle attrezzature installate.
4. Questa tavola deve essere letta conoscendo tutte le specifiche, tabelle, standard, legende e simboli utilizzati da B&W MEP.
5. Eventuali contraddizioni con quanto indicato in altri documenti va comunicato tempestivamente all'ingegnere.
6. Questa tavola non riporta indicazioni di montaggio e installazione. Sarà responsabilità del Committente fornire indicazioni di montaggio accurate.
7. Le quote degli elementi finiti dipendono da eventuali modifiche ai pacchetti di copertura.
8. Il Committente deve coordinare i passaggi impiantistici con le aperture predisposte negli elementi strutturali.
9. Il contenuto di questo documento deve essere letto tenendo conto della documentazione delle altre discipline, aggiornata alla medesima data di revisione.

150 0 150 300 450 600
SCALE 1:150

N

Key Plan



Precast details may be modified by precast manifacturer according to their own standards. Equal performance and quality shall be proven by design and calculations, duly stamped and signed by a Chartered Engineer and approved by Site Supervision /
I dettagli di collegamento delle strutture prefabbricate possono essere variati dal prefabbricatore secondo i suoi standard. Prestazioni e qualità equivalenti verranno garantite da dettagli e calcoli firmati da un ingegnere abilitato ed approvati dalla Direzione Lavori.

Rev	Details	By / Chkd / App	Date
P02	Issued for construction	CPF/BH/MEG	13/02/2023
P01	Issued for Compass Review	CPF/BH/MEG	16/12/2022

Client

COMPASS INTERNATIONAL

Architectural / Civil / Structural

STRUCTURE ARIATTA ENGINEERING GROUP

MAESTRALE

Lead Consultant / MEP Designer

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Tel: +971 4 360 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Superstructure
Precast Column Plan
Sector DH-3&DH-4

Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	**S5**
Project Number	**Scale @ A0** / **Revision**
P10424	**1:150** / **P02**

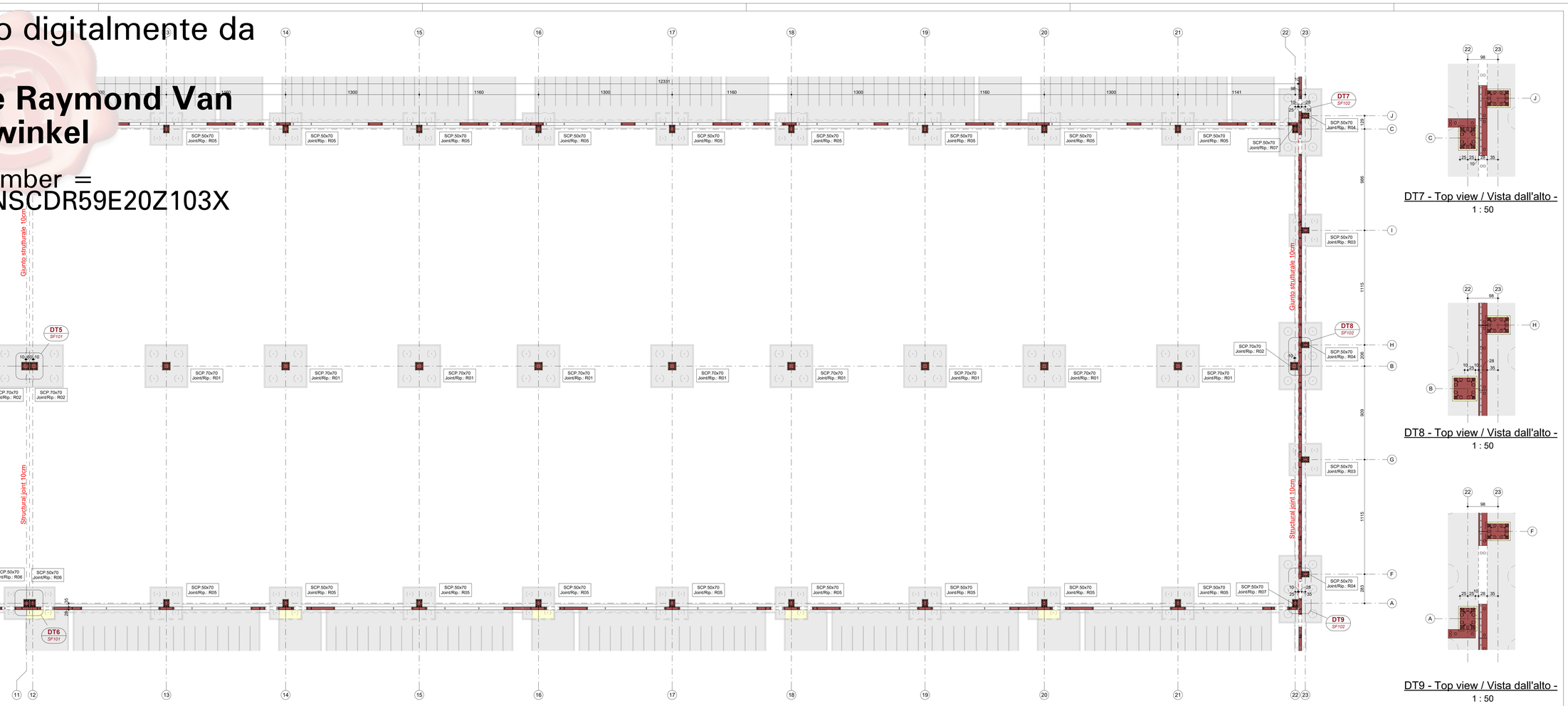
Drawing Number
SF101

A0 - Do not scale

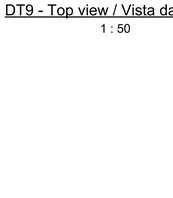
Firmato digitalmente da

Claude Raymond Van Steenwinkel

SerialNumber = TINIT-VNSCDR59E20Z103X



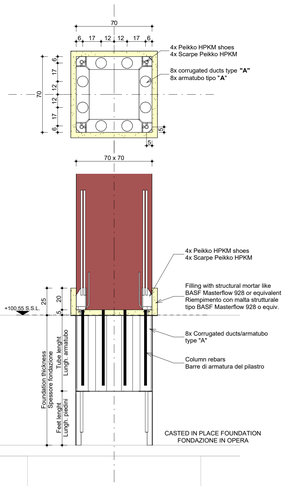
Columns plan - Top view / Vista dall'alto -
1 : 150



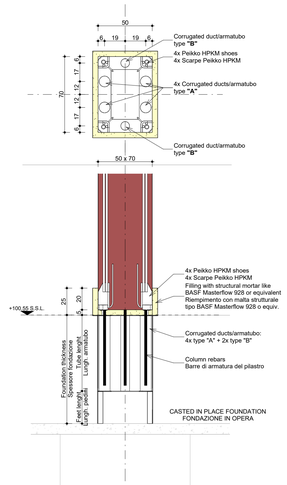
DT7 - Top view / Vista dall'alto -
1 : 50

DT8 - Top view / Vista dall'alto -
1 : 50

DT9 - Top view / Vista dall'alto -
1 : 50


4x Peikko HPKM shoes
4x Scarpe Peikko HPKM
8x corrugated ducts type "A"
8x armatubo tipo "A"
4x Peikko HPKM shoes
4x Scarpe Peikko HPKM
Filling with structural mortar like BASF Masterflow 928 or equivalent
Riempimento con malta strutturale tipo BASF Masterflow 928 o equiv.
8x Corrugated ducts/armatubo type "A"
Column rebars
Barre di armatura del pilastro
CASTED IN PLACE FOUNDATION
FONDAZIONE IN OPERA

SCP.70x70 column foot joint / Ripresa pilastro
1 : 20

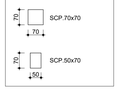

Corrugated duct/armatubo type "B"
4x Peikko HPKM shoes
4x Scarpe Peikko HPKM
4x Corrugated ducts/armatubo type "A"
Corrugated duct/armatubo type "B"
4x Peikko HPKM shoes
4x Scarpe Peikko HPKM
Filling with structural mortar like BASF Masterflow 928 or equivalent
Riempimento con malta strutturale tipo BASF Masterflow 928 o equiv.
Corrugated ducts/armatubo: 4x type "A" + 2x type "B"
Column rebars
Barre di armatura del pilastro
CASTED IN PLACE FOUNDATION
FONDAZIONE IN OPERA

SCP.50x70 column foot joint / Ripresa pilastro
1 : 20

COLUMN FOOT JOINTS / RIPRESE DEI PILASTRI

Joint type Ripresa	Count Conteggio	Column size [cm] Dimensioni pilastro	Foundation thickness Spessore fondazione	Peikko shoe type Tipo scarpa Peikko	Peikko bolt type Tipo tirafondo	Tube A Quantity N° armatubo A	Tube A Ø Ø armatubo A	Tube B Quantity N° armatubo B	Tube B Ø Ø armatubo B	Tube lenght Lungh. armatubo	Feet lenght Lungh. piedini
R01	18	70x70	120 cm	HPKM24	HPM24P	8	100 mm	0	0 mm	70 cm	50 cm
R02	4	70x70	120 cm	HPKM30	HPM30L	8	100 mm	0	0 mm	80 cm	40 cm
R03	21	50x70	<variable>	HPKM30	HPM30L	4	80 mm	2	80 mm	<variable>	<variable>
R04	3	50x70	120 cm	HPKM30	HPM30L	4	80 mm	2	80 mm	60 cm	60 cm
R05	36	50x70	100 cm	HPKM30	HPM30L	4	100 mm	2	80 mm	70 cm	30 cm
R06	8	50x70	100 cm	HPKM39	HPM39L	4	100 mm	2	80 mm	90 cm	10 cm
R07	2	50x70	120 cm	HPKM39	HPM39L	4	100 mm	2	80 mm	80 cm	40 cm
R08	2	50x70	160 cm	HPKM39	HPM39L	4	100 mm	2	80 mm	90 cm	70 cm

Precast columns
Pilastri prefabbricati



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Joints between precast elements / Collegamenti tra elementi prefabbricati; Refer to / Vedere tav. -SF507-

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150 0 150 300 450 600
SCALE 1:150

N

Key Plan

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Rev	Details	By / Chkd / App	Date
P02	Issued for construction	CP/FBH/MEG	13/02/2023
P01	Issued for Compass Review	CP/FBH/MEG	16/12/2022

Client

COMPASS Basement

Architectural / Civil / Structural

MAESTRALE

Lead Consultant / MEP Designer

Black & White Engineering
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PO Box 27753
Tel: +971 4 365 2228
www.bw-engineering.com

Project Title
MXP I-I

Drawing Title
Superstructure
Precast Column Plan
Sector DH-1&DH-2

Project Status
ISSUED FOR CONSTRUCTION

Discipline	Status Code
Structural	S5
Project Number	**Scale @ A0** / **Revision**
P10424	1:150 / P02

Drawing Number
SF102